

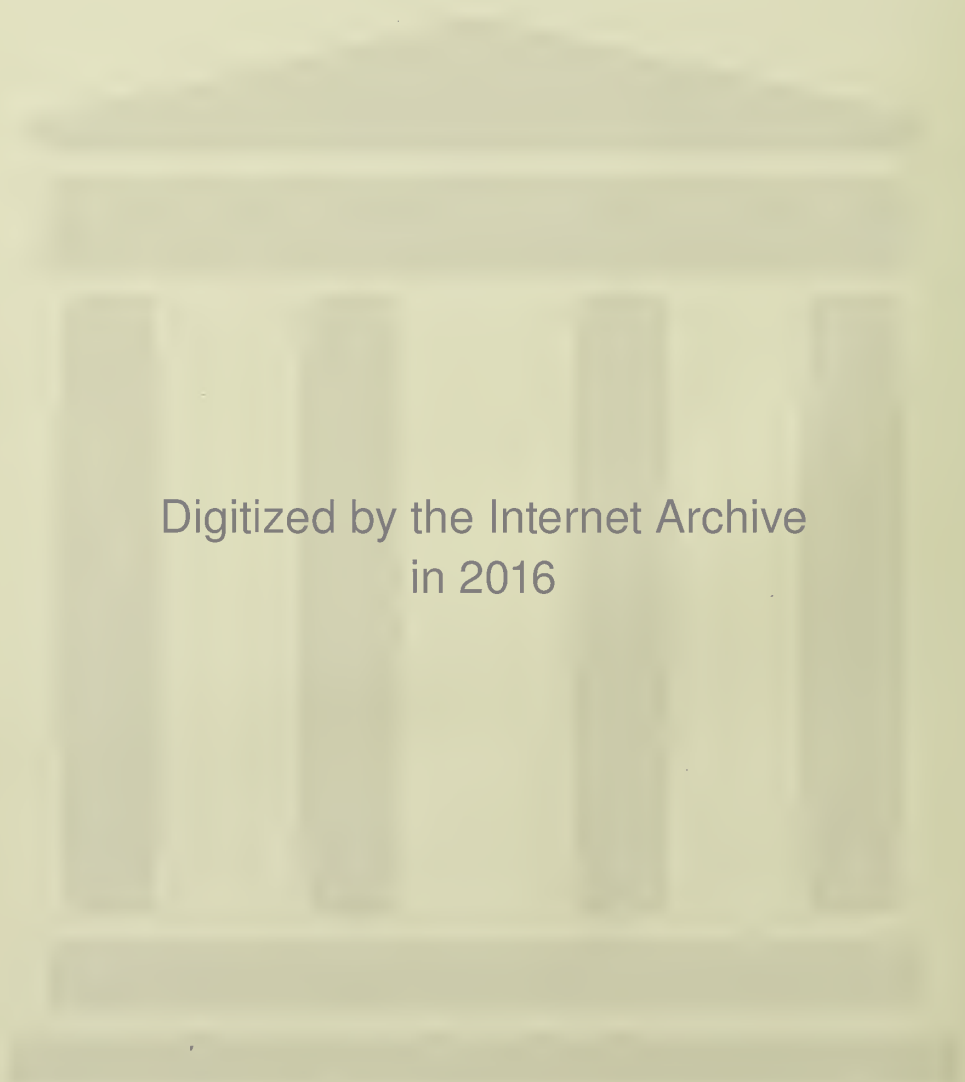
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The Journal of The Medical Association of Georgia

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Volume XXI

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Atlanta, Ga., November 28, 1932.

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They must know that many diseased, defective and deformed children pay the penalty for their parents' infection.

They must know that such of these children as mature and their progeny, account for a good percentage of the wards in our eleemosynary and corrective institutions.

They must know that nature seldom effects a cure of these diseases, but that most cases can be cured by thorough, early and persistent treatment.

They must know that if not cured the penalty is certain and the infection will most likely be communicated to many others.

They must know that every really cured case breaks a link in this chain of infection and lessens the danger to all.

They must know that nearly all prostitutes have one or both of these diseases.

They must know that the diseases can be accidentally contracted.

They must know that cooks, nurse maids, barbers and food handlers should have a physical examination in order to be safe as to disease transmission.

For literature and further information write

JOE P. BOWDOIN, M. D.,

A. A. Surgeon, U. S. P. H. S. Chief,
Division of Venereal Diseases.

MERCK & COMPANY

Geo. W. Merck, President of Merck & Company, Inc., recently announced the appointment of Dr. Hans Molitor, of the University of Vienna, to the research staff of the company. Dr. Molitor will assume the direction of research work in pharmacology. In announcing the appointment, Mr. Merck stated:

"The addition of Dr. Hans Molitor, of Vienna, to the staff of Merck & Company, Inc., results from the decision of the management to adopt a policy of intensive research in pure and applied chemistry and allied subjects. To provide adequate facilities for this research work, Merck & Company, Inc., despite the depression, is constructing at Rahway, N. J., at the present time, a research laboratory to cost in excess of \$200,000, which will house a staff of 25 research chemists. Dr. Molitor will take over the supervision of the details of equipping and staffing the laboratory to be devoted to research in pharmacology.

"Dr. Molitor comes to this country with a background of scientific accomplishment in the universities and hospitals of Europe. Born in 1895, in Austria he took up his studies in the University of Vienna under the faculty of medicine in 1913, receiving his Doctor of Medicine degree in 1921.

"During the last year of the war, he did a considerable amount of outstanding bacteriological work, and following it he was an interne in the clinic of Professor Chvostek in Vienna. During the years 1919, 1920 and 1921, he was an interne in surgery and gynecology, and in the eye section of the hospital at Reichenberg.

"From September, 1921, to September, 1923, he was an assistant in the Department of Pharmacology in the University of Vienna, later receiving a stipend from

the Rockefeller Foundation, and studied in the University of Edinburgh under Professor Barger and worked in pharmacology under Professor Cushny of that institution.

"Following his studies in Scotland he also spent some time in Cambridge, London, and Utrecht, returning in 1924 to Vienna to the faculty of the University, where he continued his work in pharmacology until June, 1931, when he was made Extraordinary Professor of Pharmacology in that university.

"Dr. Molitor has published a number of reports under his own name and jointly with his colleagues on various topics associated with pharmacological research work."

COMMERCIALISM VS. PROFESSIONALISM

Under this title the Journal of the Medical Society of New Jersey relates the story of "One of the large manufacturers of a product extensively prescribed by practicing physicians, and extensively used for that reason, was, it seems, told by the representatives of a powerful drug chain organization that it must make certain concessions to 'modern merchandising methods', or else—. The first thing wanted was an extra discount. This was needed in order that the products in question might be advertised to the public. The advertising was deemed necessary in the interest of both the manufacturer and the chain organization which proposed to handle the products in question. The answer of the manufacturer was that he did not desire to advertise his products to the public. He prided himself that he advertised only to the medical profession. He felt that the public had no business prescribing for itself, even such a good product as he made.

"The retailer urged that goods such as those in question could be sold in larger quantities by displaying them in windows, advertising them in newspapers, and by the recommendation of clerks. The manufacturer did not want any of those procedures followed."

Such occurrences are an old story to ethical manufacturers, although the practicing physician doubtless is not aware of how much pressure is thus brought to bear.

S. M. A. Corporation not only refuses to participate in such unethical practices, but in addition every package of S. M. A. from the beginning has borne this injunction: "Use only on order and under supervision of a licensed physician. He will give you instructions."

"STONE WALLS DO NOT A PRISON MAKE NOR IRON BARS A CAGE"

Winter is a jailer who shuts us all in from the fullest vitamin D value of sunlight. The baby becomes virtually a prisoner, in several senses: First of all, meteorologic observations prove that winter sunshine in most sections of the country averages 10 to 50 per cent less than summer sunshine. Secondly, the quality of the available sunshine is inferior due to the greater distance of the sun from the earth altering the angle of the sun's rays. Again, the hour of the

day has an important bearing: At 8:30 A. M. there is an average loss of over 31 per cent, and at 3:30 P. M., over 21 per cent.

Furthermore, at this season, the mother is likely to bundle her baby to keep it warm, shutting out the sun from Baby's skin; and in turning the carriage away from the wind, she may also turn the child's face away from the sun.

Moreover, as Dr. Alfred F. Hess has pointed out, "it has never been determined whether the skin of individuals varies in its content of ergosterol" (synthesized by the sun's rays into vitamin D) "or, again, whether this factor is equally distributed throughout the surface of the body."

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The Effect of Ingestion of Alcohol on Wassermann, Kahn and Hinton Tests. John W. Brittingham, M.D., and Samuel F. Rosen, M.D., Am. J. Syph., July, 1932, Vol. 16, p. 403.

Twenty-one years ago, it was announced that a few drinks changed a positive Wassermann reaction to a negative in nine patients. Apparently this was accepted as a general principle, along with many other items on a basis equally firm, by the medical profession until a year ago. At that time two syphilologists at the University of Georgia began to wonder if it were so. They decided to find out. The corn whiskey in Augusta, it would seem, has become irritating to the stomach. They therefore used the amount of grain alcohol equivalent to that in a pint of whiskey, diluted it sufficiently and administered it to twenty men with positive Wassermann reactions. One gathers that they experienced no difficulties in securing suitable volunteers for the experiments. They took several samples of each patient's blood at intervals. In none of the eighteen untreated patients was the Wassermann reaction appreciably affected. In thirteen there was no change in the Wassermann, Kahn or the Hinton test. In only one were all three tests found negative at the same time.

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THE JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA

DEVOTED TO THE WELFARE OF THE MEDICAL PROFESSION OF GEORGIA
PUBLISHED MONTHLY under direction of the Council

Volume XXI

January, 1932

Number 1

CAESAREAN SECTION UNDER LOCAL AND SPINAL ANESTHESIA*

T. C. DAVISON, M.D.
EDGAR BOLING, M.D.
Atlanta

"Caesarean section, designed as a life saving measure, has become a sort of medical boomerang, carrying with it a mortality which, since it is so largely avoidable, is criminal rather than tragic." Thus reads the indictment against the medical profession as made by Dr. Jeff Miller in his paper on a "General Consideration of Caesarean Section". If the mortality from this procedure is as largely avoidable as he states, is it not time for the medical profession to consider the ways and means of its reduction. Dr. Miller gives a maternal mortality in Caesarean section ranging from 2 per cent to 25 per cent, and an infant mortality from 2 per cent to 30 per cent from various hospitals and clinics.

Williams thinks that thruout the country the operative mortality is not less than 10 per cent. Welz found that in the city of Detroit in 1926 there was a maternal mortality of 13 per cent, while 11 per cent of the infants perished. It is the conviction of Dr. Edward Schumann that statistics, while accurate and correct, are entirely misleading and place the operation in a false and erroneous position. An excellent parallel may be found in the records of appendectomy, he states, the total mortality of which procedure is exceedingly high, whereas the interval operation, performed by a trained surgeon, is practically devoid of fatalities except in cases of very unusual surgical calamity, which is entirely unforeseen and absolutely unpreventable.

There are many reasons for this fearful

Caesarean mortality, any one of them requiring a separate paper for its discussion. It is not the purpose of this paper to discuss each at length, but in passing let us mention, first, the indications, which have been so extended as to make labor pathologic in far too many instances. Individualization of all patients is desirable and indications for Caesarean section are necessarily and rightfully elastic. In doubtful cases the invocation of one's obstetric conscience will end in action which is safest for the patient. Under indications, it is interesting to note the results of a group of cases classified as Dystrophia Dystocia Syndrome reported by Greenfield from the Chicago Lying-In Hospital. The characteristics of this class of patients are as follows:

The patient conceives for the first time relatively late in life or has sad obstetrical experience repeatedly. She is usually a heavy-set woman with masculine and hyperpituitary characteristics. The external pelvic measurements are usually large, but the available space in the pelvis is somewhat smaller than normal and the extremities are short. There may be a family history of dystocia and the patient's own history may elicit abnormalities of the sex life. The patient usually goes beyond term and the fetal head, which is hard and in an occiput posterior position, remains above the pelvic inlet even after many hours of labor. The membranes often rupture before the onset of pains and the latter are usually weak and irregular. When delivery is attempted from below, the result is usually disastrous to the child and injurious to the mother. From their experience Greenfield states definitely that disaster to the child and extensive lacerations of the mother will most likely occur in the majority of these cases, if delivery is attempted thru the vagina. We must not forget that a difficult delivery from below with its attendant lacerations, hemorrhage, traumatism, and

*Read before the Surgical Section of the Medical Association of Georgia, Atlanta, May 14, 1931.

long anesthesia is by no means without danger to the mother. Furthermore, the number of still-births, cerebral hemorrhages, and fractures of the cervical spine of the child is appallingly high. Hence, while the danger from abdominal delivery is ordinarily greater, when we face the probability of a very difficult vaginal delivery, the latter with its most probable damage to both mother and baby is not in reality less serious than a Caesarean section. In view of this picture Greenfield advises a Caesarean section to deliver a living and uninjured child. Subsequent disability of the woman who has undergone a high forceps operation is very much greater than after elective Caesarean section.

It is necessary to mention at this time the heated controversy and battle of statistics recorded in medical literature for the last few years as to the method of operation, but purposely we shall avoid this contested subject—classical vs low cervical Caesarean.

The mortality in Caesarean section is also due in part to the time at which this operation is performed. Quoting Dr. Miller again, "The death rate increases approximately 1 per cent with each hour of labor and each vaginal examination, and increases 10 or 15 per cent after each attempt at delivery. It is believed by some that the primary mortality in Caesarean section performed before rupture of the membranes, before the patient is unduly fatigued and without vaginal examination, will be so low as to contrast favorably with any method of delivery in similar cases," and in the words of Dr. Shumann, "Especially if the operation be performed under local infiltration with novocaine and without resort to inhalation anesthesia".

This brings us to the purpose of this paper—to discuss anesthesia as an important factor as regards the mortality and morbidity of this procedure. The advantages of Caesarean section under local or spinal anesthesia are: diminution of post-operative nausea and vomiting; the absence of shock; the fear of post-operative pneumonia being practically dispelled, and paralytic ileus with distension, especially after spinal anesthesia, being practically eliminated. In complicated cases which are already taxing the patient's resistance to

its capacity as: renal toxemia with high blood pressure; profuse hemorrhage; organic heart disease; or advanced tuberculosis inhalation anesthesia is decidedly hazardous, if not absolutely prohibited. In such cases local or spinal anesthesia may be used with comparative safety, and the ease of their employment is most striking and convincing. The advantages of local and spinal over inhalation anesthesia are that there is no effect on the heart, lungs, kidneys, or other vital organs of the mother. Meredith F. Campbell in the *Journal of Urology*, September, 1930, noted post anesthetic pulmonary complications to be seven times more frequent in patients receiving general anesthesia. He states further that renal complications are absent with spinal anesthesia. McNider has definitely shown that ether narcosis has a toxic affect upon the renal epithelium. Thus with the use of local or spinal anesthesia post-operative lung, intestinal or kidney complications are nil.

When narcotics are employed or any form of inhalation anesthesia is administered to a pregnant woman at term, unquestionably some of the anesthetic agents are absorbed by the child, producing cyanosis and oftentimes rendering resuscitation difficult. Local or spinal anesthesia in no way affect the well-being of the child.

The toxemias of pregnancy are not affected by their use. There is no suppression. Elimination is not altered and dehydration is not produced by vomiting or aggravated by withholding fluids. The absence of dehydration and suppression alone is a distinct advantage in toxemias, and eclamptics. Acidosis, which invariably accompanies the toxemias, is usually lessened. It is never increased. The carbon dioxide content of the blood is not altered. Diabetes, a severe complication at best, has been shown by Joslin to respond better to spinal than any other form of anesthesia. In a comparison of spinal and local anesthesia we feel that spinal offers several advantages. There is complete freedom from pain or other sensation in the operative field, while a Caesarean under local infiltration produces a certain amount of pain and discomfort especially at the time of the uterine incision, the sum total of this pain and discomfort however does not exceed that

of several strong labor pains. With spinal anesthesia, the tissues are absolutely relaxed, greatly facilitating operative manipulation; the intestines are contracted and do not protrude from the abdominal incision; and since the sphincters are relaxed and peristalses augmented, the expulsion of flatus is strongly stimulated materially minimizing post-operative distension, a most frequent and serious sequel of Caesarean section.

As to the objection or contra-indication to the use of spinal anesthesia, many authorities feel that it should not be given to the moribund or extremely weak patient. A general anesthesia would be even more hazardous. Local novocaine infiltration is here the method of choice.

Hypertension is no contra-indication. Formerly hypotension was considered such and the serious depression in blood pressure was one of the chief objections to this method. Today this has been practically eliminated by the use of ephedrine and the utilization of the Trendelenberg position. The blood pressure drop is due to the involvement of the vaso-motor nerves, with the consequent "pooling" of blood in the splanchnics. By lowering the head of the table, gravity causes a sufficient flow of blood to the brain to carry on the necessary function of life, even if there is no recordable blood pressure. The importance of this is at once recognized by the fact that our great interest in blood pressure depression is really one of fear of serious cerebral anemia. And this fact leads us to the only real contra-indication in our opinion to the use of spinal anesthesia. Cardiacs with broken compensation cannot tolerate being placed in the Trendelenberg position or even remaining flat without marked embarrassment of circulation and respiration. Thus, this group of patients should not be subjected to spinal but should be given local anesthesia with the head elevated.

Of a series of nineteen cases of Caesarean section, seven were performed under general anesthesia; eight under local anesthesia, and four under spinal anesthesia. As to indications, four were for placenta previa or abruptia placenta; two for eclampsia; three for a contracted pelvis, two of these having pre-

vious Caesarean section; six with previous forceps or difficult deliveries resulting in dead babies—these cases falling into the group of Dystrophia Dystocia Syndroma; one with pulmonary tuberculosis, myocardites and asthma; another with pregnancy superimposed upon a large degenerating fibroid with a previous history of hemorrhages and secondary anemia; and lastly one with acute nephritis and decompensating heart with beginning pulmonary edema. This last case bears further mention as the patient was a primipara, age 19, at term with labor just beginning, the membranes had not ruptured and no vaginal examinations had been made. She was seen in consultation, due to the acute nephritis and decompensating heart which manifested itself by generalized edema and elevated blood pressure, marked dyspnea, cyanosis, signs of beginning pulmonary edema. It was decided that she could not withstand the strain of labor nor could she undergo a general anesthetic for instrumental delivery thru the vagina. A spinal anesthetic was also contra-indicated because of the marked dyspnea and cyanosis due to the cardiac decompensation. Thus a Caesarean section under a local infiltration anesthetic with the head of the table elevated was advised and performed. The mother had a stormy convalescence but recovered. The baby breathed immediately upon being delivered and entered into the nursery routine normally.

In this series of nineteen cases there were two maternal deaths, a mortality rate of 10 and a fraction per cent. One death was due to eclampsia, the woman continuing to have convulsions and dying several hours after the operation. The other case died of shock within the first twenty-four hours after operation. The patient had been in labor more than forty-eight hours before being seen in consultation when a Caesarean section was advised. Although this series is far too small to present any statistical value, it is interesting to note that both fatalities fell in the group of seven Caesareans performed under general anesthesia. Both cases, however, were practically moribund when referred for operation. The babies in these cases also died. In the twelve operations performed under

local or spinal anesthesia, there were no maternal deaths and only one death of a baby, and this one due to placenta previa with hemorrhage at seven months.

[At this point moving pictures were shown of two cases of Caesarean section performed under spinal anesthesia. The first case was that of a woman 36 years of age who had one living child eight years old, was delivered after a long and difficult labor which necessitated the use of high forceps. This resulted in a complete third degree laceration into the rectum with fecal and gas incontinence, practically ostracizing her from society. There had been four attempts at repair of this laceration with three complete failures and finally with only partial success. In view of this difficult previous labor and the fear of another third degree laceration, a Caesarean section under a spinal anesthetic at eight and one half months was advised. A Classical Caesarean section was performed as planned and a bi-lateral salpingectomy was performed to prevent further pregnancies. The mother made an uneventful recovery, leaving the hospital with a normal baby on the fourteenth day.

The second case was one with pregnancy superimposed upon a fibroid tumor of the uterus, with repeated hemorrhages. This patient presented a picture of profound secondary anemia with hemoglobin estimation of thirty per cent during the early months of pregnancy. Under treatment she improved to a hemoglobin estimation of sixty-five per cent at the time of operation. The fibroid tumor was located in the fundus of the uterus and an abortion was expected constantly during her entire pregnancy. Although the fibroid tumor did not mechanically obstruct a normal delivery it was thought best, due to her anemia, to reduce the loss of blood to a minimum. A labor and delivery, with the increased danger in this case of post-partum hemorrhage, and later a complete hysterectomy for removal of the fibroid tumor was considered more hazardous than a supra-cervical hysterectomy and then the opening of the uterus and delivery of the child. So under a spinal anesthetic the abdomen was opened, the broad ligaments on each side of the uterus were clamped and cut; the soft cervix was clamped and cut and the uterus was laid out on a side table and opened. The baby thus delivered breathed and cried promptly, no measures of resuscitation being necessary. The clamped broad ligaments and cervix were dealt with as usual in a supra-cervical hysterectomy. The mother made an uninterrupted recovery. The fibroid tumor was located in the fundus of the uterus; was about the size of a grapefruit; and was necrotic and degenerating in its interior.]

Conclusions

1. A Caesarean section is not a safe substitute for a normal or slightly difficult delivery.
2. A Caesarean section is safer for mother and child if performed at eight and one-half months before labor has begun.
3. A Caesarean section is safer for mother and child if performed under a local or spinal anesthetic.
4. A Caesarean section, if performed under these conditions, compares favorably with any other methods of delivery when a difficult delivery is inevitable.

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Discussion on Paper of Doctor Davison

Dr. R. A. Bartholomew, Atlanta: The subject of choice of anesthetic in Caesarean section is indeed a very important one. Caesarean section is not an ordinary surgical operation, because, in that, we have to consider only what is safe for the mother; whereas in Caesarean section we have to consider what is safe not only for the mother but for the baby, bearing in mind that some of the anesthetics used, if used too long before the operation is completed or the baby is delivered, may result in asphyxia. Spinal anesthesia fulfills the requirements very well, in that it avoids any tendency to asphyxia of the baby before the delivery occurs. It also has an added advantage in that the patient is thoroughly relaxed and there is very little necessity for packing off, and consequently there is less tendency to destension afterwards.

Local anesthesia, of course, is in the same class as far as safety for the baby is concerned, because there is again no tendency for an asphyxiated child on delivery. When we consider the inhalation anesthetics, nitrous oxide, ethylene, and ether, we have that very decided risk to consider—that of a child born with a certain degree of asphyxiation and possibly some difficulty in resuscitation. The use of local anesthesia with nitrous oxide, using the local up to the point where the uterus is to be incised and then giving nitrous oxide to avoid the strain and some pain, which can be avoided, when the baby is extracted, works very successfully; and the baby should have very little tendency to asphyxiation if this plan is followed out, because the amount of nitrous oxide given is very, very little.

Ethylene, can be used in the same way, or without local anesthesia, but it probably has a little bit more tendency to produce a delay in breathing of the baby than the method I just previously mentioned. Ether, is an anesthesia which has not so much tendency to produce asphyxiation of the baby, but we all know the danger of post-operative pneumonia and dislike to have the patient run that risk.

I think it should be borne in mind, with any type of anesthesia other than spinal or local, to so plan the operation that all preparations for the operation will be completed and finished before the incision in the abdomen is made. In other words, I think it is a very risky thing to anesthetise the patient in a side room and subject her to maybe ten, fifteen or twenty minutes of anesthesia (especially so if it is

nitrous oxide or ethylene; less so if it is ether) in a side room before she is brought in and draped and the incision made. In that way the baby will get twenty to twenty-five minutes of anesthesia before being delivered, and it is that that is so dangerous for the baby. I can cite a case in which I assisted in doing a Caesarean section some few years ago. The patient received nitrous oxide for perhaps fifteen minutes before the incision was made. The indication for it was a previous Caesarean, not wishing to run the risk of normal labor after a previous Caesarean. Labor had not begun before the operation was started. The baby could not be resuscitated, and an autopsy showed hemorrhage of the brain. There could not have been any reason for it except the extreme degree of asphyxiation.

Dr. George Y. Massenburg, Macon: The evaluation of statistics is a very difficult thing. Ordinarily I think statistics rather cover up the calamities than exaggerate them. Statistics ordinarily, when they are going to be used, are going to be different, giving an advantage, possibly, to those who use them.

In Doctor Davison's paper he mentions the obstetrical conscience. At first I felt that was a matter of expression of judgment; but later I thought it was more than that, that it is a matter of the quality of the intellect and judgment and, in addition to that, it embraces a quality of soul—honesty. I think often times in surgery that the burning, indomitable ambition for power or for fame, translated possibly into money and glory, might sometimes change our judgment. I have unquestionably seen some ambitious young obstetricians in their early years do a good many more operations than the mature obstetricians in their community.

We all admit that local anesthesia is the safest anesthesia, because we employ it in our desperately ill individuals. That is an admission, when we do it. I think the reason why we do not use it more is a matter of fear; we are fearful of an incomplete anesthesia; we are fearful of the attitude of the patient; we are fearful that something may take place that might be embarrassing to the surgeon. Local anesthesia, it would seem to me, as discussed in the text books and papers, is made a rather difficult thing. They seem to impress the importance of anatomy, which is really of importance in regional anesthesia; of localizing the nerve trunks, but after all, if a thorough infiltration is done in the various layers of the skin, under the fascia, and through the muscle satisfactory anesthesia is obtained. In abdominal cases, infiltrate under the skin; pass the needle (and you will feel it when it goes under the fascia) and infiltrate that area. Go through the muscle, and you will feel the resistance of the pre peritoneal fascia, and then infiltrate there. I believe the greatest mistake is failure to use enough of the anesthesia; we are fearful of giving too much. I used seventeen ounces of a one-per-cent solution in a radical breast operation and never saw any sign of its being toxic.

Dr. W. L. Ballenger, Atlanta: It was my pleasure to witness this operation, and I had witnessed one Porro operation before. One day in the Postgraduate Hospital in New York, Dr. John Erdman was doing a hysterectomy. We were very much interested in his operation. About the time he had delivered the uterus enough to make an examination he said: "This is a pregnant uterus. I will do a Porro". He immediately put on the clamps, delivered the uterus, took it over to a table, and delivered a living baby. That was not premeditated. When I came home Doctor Davison and I were talking, and I told him about this case. He seemed very much interested, but one never can tell what is in his brain; something new pops up in it every day. One night last winter he called me up over the telephone about two o'clock and asked how I was feeling. You can imagine how I was feeling. Anyway, the information he gave me was sufficiently interesting for me to get up and go over to the Georgia Baptist Hospital, where I saw this operation. This was premeditated. This woman had a tumor and also was pregnant.

I had a case about three years ago. The woman objected to operation because of taking the anesthetic. I told her she would not have to take an anesthetic, and I consulted Doctor Davison, and she was delivered in the same way.

I congratulate the father and mother on this child and on having a physician with nerve enough to take the uterus out and deliver the baby alive. As you see from the picture, the tumor had begun to disintegrate. I want to congratulate Doctor Davison and also the parents of the baby.

Dr. Charles H. Richardson, Jr., Macon: It is very difficult to add anything to such an excellent presentation of a subject as has been made here this afternoon, and it is not my purpose to try. Since spinal anesthesia has come into such widespread use, however, I think it is worth while to call attention to some of the salient things when the subject comes up.

Going back to local anesthesia, the essayist made the statement that the danger of post-operative pneumonia with local anesthesia is practically nil. I do not believe the statistics will bear that out. Recent work that has been done shows that the incidence of post-operative pneumonia is probably almost as great with local anesthesia as with any other anesthesia. When we bear in mind the recent conception of post-operative pneumonia—that it is an atelectasis or infarct, we realize that the very fact that the respiratory apparatus is put at so much rest under local or spinal anesthesia makes the danger probably as great.

Next, patients with hypotension stand spinal anesthesia as well as patients with hypertension. We used to think that they did not but now we know that they do. Patients with hypotension stand spinal anesthesia excellently; while patients with hypertension who are used to going at high speed, do not stand the lowering of the circulatory current so well.

Second, patients with heart disease do not stand spinal anesthesia very well. And unless the patient has

actual decompensation he will stand spinal anesthesia very well, because under spinal anesthesia, the heart is put at rest and the patient is even more comfortable than before.

Dr. Garnett W. Quillian, Atlanta: It was my privilege and pleasure to hear the original presentation of this paper, and, if I remember correctly, at that time Doctor Boling gave in a review of medical literature a very high percentage of mortality. At that same meeting I reported a series of Caesarean sections that I had done personally, which were sixty-seven in all. I did not use the spinal anesthesia in any of these cases, but we used the nitrous-oxide-oxygen anesthetic, and the record that we had was sixty-seven Caesarean sections with sixty-eight living babies and sixty-seven living mothers. Following this discussion on my part, I had the suggestion made to me, by Doctor Davison, I think, that perhaps it would be interesting to report this series of cases. In this series I had three sets of twins. In the sets of twins all of the twins lived, but in some of the other cases there were two babies that died, but we had a series of sixty-seven abdominal Caesarean sections with sixty-seven living mothers and sixty-eight living babies.

Now, I took a record out of my file of a case upon whom we had done a Caesarean section about a year and a half ago. That patient has an arthritis and an ankylosis. We delivered her of two living girl babies, both of whom are doing fine. She herself is doing well. This patient is pregnant again. It is impossible for her to separate her limbs sufficiently to have a therapeutic abortion, even if she desired that to be done. After consultation with eminent men here in town, it was agreed that it was all right to do it. I offered to do for her a modified Porro operation preserving her ovaries or to seek to help her go on through another pregnancy, and she chose the latter. She is now pregnant, and we expect to do another abdominal Caesarean section for this same patient sometime in November. (On November 14th I delivered this patient of another girl baby weighing $9\frac{1}{2}$ pounds, at which time her tubes were ligated and resected and appendix removed. Both mother and baby are doing well.)

I have no objection at all to the spinal anesthesia; I think it is fine; but in my own work I have never felt the necessity for using it. In this series of cases we have used nothing except the nitrous oxide and oxygen. The completed operation never consumes more than twenty-five or thirty minutes; there is no shock; there is no post-operative nausea; and the patients always do excellently.

Just a little while ago I was upstairs paying my respects to Mrs. Margaret Sanger, who appears tonight in a debate concerning birth control. It occurred to me that, while I believe in birth control as a measure that is worth while in a great many instances, after birth control becomes an established fact there ought to be a new propaganda in favor of voluntary motherhood. I think it ought to be the fashion for women to have fine children. It is wonder-

ful that thru the Caesarean operation it is possible to give living babies to women who desire to have children, when otherwise it might be impossible. So, catching my inspiration from that expression of Thomas Carlyles, who said: "This I call tragedy, that one man who had the capacity for knowledge should die ignorant," I want to say, Mr. Chairman, that this I call tragedy, that one woman who has the legitimate capacity, both physical and mental and moral, to become a mother, should die childless.

Dr. Stewart D. Brown, Royston: I do not, and would not if I could, condemn anything Doctor Davison has said. I may be somewhat like Doctor Westmoreland's famous country doctor, who, when he comes to town, always has a wonderful story to tell. Probably he has something on his feet, some amber on the corner of his mouth, and scrambled eggs on his shirt. If I have anything on my feet it is white feathers brought about by recent experiences I have had with Caesarean section.

It would seem that spinal anesthesia would certainly be indicated in Caesarean section, if for no other reason than the avoidance of the possible asphyxiation of the baby. Going on that line, I decided after seeing Doctor Davison's demonstration of this moving picture here during the Southern Surgical Congress that I would treat this case that way. My case was particularly interesting from the fact that the mother had had three dead babies, all of which died during the process of delivery. I knew she was in labor, and she was brought to the hospital for the purpose of having a Caesarean section, with the hope of getting a live baby. This was her fourth pregnancy. She was in excellent condition; she walked into the operating room and got up on the operating table. I gave her spinal anesthesia. I noticed as we draped her that she was quite blue, so I gave her some aromatic spirits of ammonia and put an oxygen tube in her mouth and called for some adrenalin. We gave her local anesthesia in the spine when we introduced the spinal anesthesia. It was quite evident that my patient's life was about extinct. Her pupils were perfectly wide, and in less time than I have been talking to you she was black. I never felt so bad in all my life, I tell you, as I did then. I immediately took a long needle, took twenty-five drops of adrenalin, and shot it deep into her heart; then with the aid of the assistant gave her artificial respiration for fifteen minutes, with oxygen and everything we knew to do. After about fifteen minutes we began to see feeble respiration, and her heart began to jump; then I was the happiest man alive. I want Doctor Davison to tell me, if he can, what happened to my patient. That was not the first Caesarean section I had ever performed under spinal anesthesia. I have done a good many under local anesthesia; probably I have done a good many more than I ought to have. I have used spinal anesthesia for pregnant women with acute appendicitis, because I felt I was giving my patient the best opportunity for recovery. But it strikes me that you can not say that there is not some danger

in giving spinal anesthesia. I have wondered what did happen in the case I have just related, and I hope Doctor Davison, in his conclusion, will offer some explanation.

Doctor Davison, (closing the discussion): I wish to thank you all for your discussion and assure you it is appreciated.

Doctor Harbin asked me to mention something about the method of suturing, or closing the uterus. There is nothing unusual about my method at all. I simply tell my nurse to have about a dozen number 1 chromic catgut sutures, about 15 inches long, on round, curved needles. I introduce these one-half inch from the incision thru the entire thickness of the uterus, stopping just short of the mucous membrane. I introduce these thru-and-thru sutures, tying them, and then put between those, approximating sutures, also interrupted, not so deep. In some cases the uterus will be relaxed enough to close over those interrupted sutures with continuous sutures, but not always.

Some think it is better to allow the woman to go into labor for two or three hours, so that the cervix will dilate and allow drainage from the uterus. That may be true, but I have never had any trouble with the uterus draining when doing the operation at eight and a half months.

Some think local anesthesia or spinal anesthesia is not necessary but that it can be done under inhalation anesthesia. Doctor Quillian did all of his under inhalation anesthesia, but I want to say of Dr. Quillian that in all his sixty-seven cases he did not have one as bad as some of my cases.

A few years ago I was in Pelham, Ga., and saw a woman in consultation who was very cyanotic; she was propped up in bed gasping for breath. She had a cardiorenal disease and could not take any anesthetic and could not stand spinal anesthetic. I recommended Caesarean section. She was taken to Thomasville, and a Caesarean section was done successfully under local anesthesia.

The respiratory complications have been questioned. Other authorities state that the respiratory complications are seven times more frequent in general anesthesia than in spinal or local anesthesia. I cannot vouch for the truth of that, but I believe they are more frequent.

Doctor Ballenger spoke of seeing this operation. He told me once of seeing Doctor Erdman's doing this operation (hysterectomy before Caesarean) in New York. Some years later I had occasion to do this operation, and I probably would not have done it except for Doctor Ballenger's report of Doctor Erdman's case.

As to Dr. Brown's unfortunate experience, we also have unfortunate experiences with general anesthesia. I have had the unhappy experience of having three patients die on the table, all with gas or ether anesthetic. No one has made the statement that there is no danger in spinal anesthesia. There is danger in every anesthetic. There is danger in riding down the street here,

but we all take the risk every day.

In closing, I should like to read some statistics. "In the discussion of the value of spinal anesthesia before the Society of Surgery in Paris in 1923 and 1924, 20,267 cases were reviewed in which this type of anesthesia was used, with 10 deaths." Gentlemen, I think that is just about as conclusive an argument as I can give in regard to the danger in spinal anesthesia.

TULAREMIA STUDIES IN GEORGIA*

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Atlanta

Bacterium tularensis was first isolated by McCoy and Chapin in their study of a plague-like disease of rodents in California. They published their discovery in 1912.¹ In the same year Wherry and Lamb studied the first case of infection in man with *Bacterium tularensis* in which the diagnosis was established bacteriologically.² This case was one of the oculoglandular infection. Deer fly fever was described by Pearse in 1910,³ but not until 1922, after three years of study, in which he himself contracted the infection, was Francis able to show that this disease was tularemia. In his epoch-making paper, "Tularemia, A New Disease of Man,"⁴ he showed that infection with *Bacterium tularensis* is common among wild rodents, particularly rabbits, and that this infection may be transmitted to man by direct contact or through the bite of the deer fly. Thru the studies of Parker and Spencer,⁵ it was shown in 1923 and 1925 that wood ticks transmit the disease to man and serve as ideal reservoirs in which the disease is kept alive thru the long western winters and transmitted from rodent to rodent. *Bacterium tularensis* is a pleomorphic non-motile bacillus or coccus, gram negative and growing best on media containing cystine, such as coagulated egg yolk. It is strictly aerobic.

Tularemia is widely distributed in nature, occurring chiefly among rodents as a fatal bacteremia characterized pathologically by lymph adenopathy and multiple areas of focal necrosis in the liver and spleen. Wild hares, rabbits, rats, mice, squirrels, and other animals, including opossum, quail, sheep,

*Read before the Medical Association of Georgia, Atlanta, May 14, 1931.

and muskrat have been known to have the disease.

In man the virulence of the infection seems lessened and only about four per cent of reported cases have been fatal. The incubation period is from two to fourteen days, the onset being characterized by chills, fever, general malaise, and severe prostration. Usually there develops a granulomatous ulcer at the site of inoculation and a regional lymphadenopathy. In many cases there is only a generalized adenopathy without focal lesion. Rarely there is no adenopathy, the disease then closely resembling typhoid fever and being distinguishable only by blood culture or agglutination tests.

During the first ten days of the infection the organism may be cultured from the blood. After this period specific agglutinins are developed which render the diagnosis by agglutination tests possible as in the Widal test for typhoid fever.

Pathologically the lesions in man are similar to those in rodents and often multiple small abscesses of regional lymph glands, liver and spleen develop. Pneumonia is responsible for the fatal termination in about twenty-five per cent of cases where death occurs. This is characterized by a confluent bronchopneumonic type of reaction with areas of focal necrosis of lung tissue. At the periphery of the necrotic areas in lung, liver, spleen or lymph glands may be seen zones of epithelioid and fibroblastic granulation tissue, containing, in the older lesions, multinuclear giant cells of the Langhans type.

There are four types of infection recognizable clinically in man:

1. Ulceroglandular.
2. Oculoglandular.
3. Glandular.
4. Typhoid.

An attack of any type confers a lasting immunity.

Six years ago in Georgia the State Board of Health laboratories made no diagnostic agglutination tests for tularemia. Between January, 1930 and April, 1931 in sixty-six cases the diagnosis was made or confirmed by this laboratory. Of course more cases than these were diagnosed in the State but these represent cases of which record was kept in

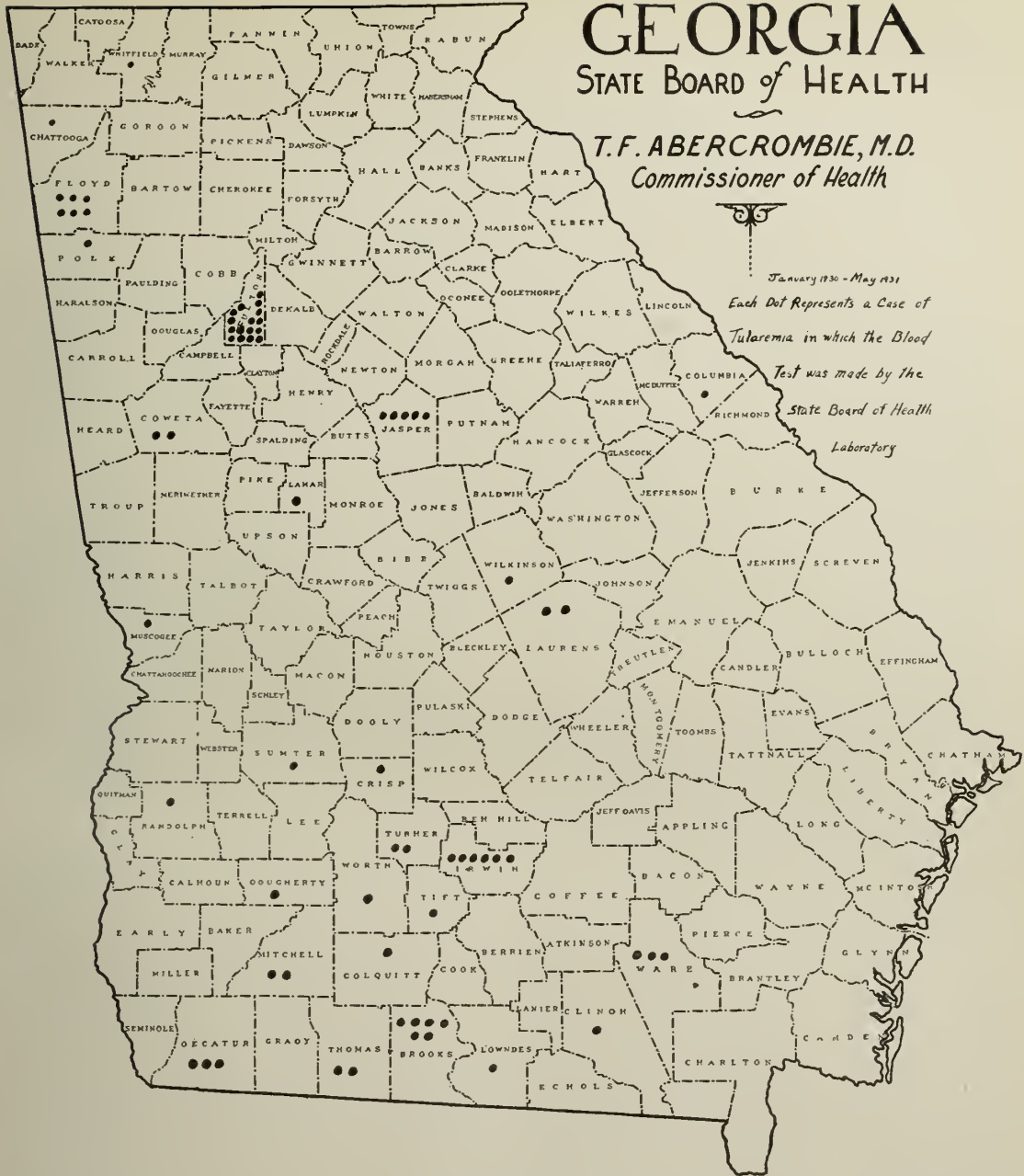
the state laboratory. From a glance at the state map charting the counties from which these cases were reported it is evident that the largest number of cases in one locality was in Fulton County. These occurred chiefly among market-workers handling rabbits shipped into Atlanta for sale. Most of the other cases occurred in South Georgia, but no section of the State may be said to be wholly free from tularemia.

Of the thirty-five cases concerning which we have data, thirty-one were of the ulceroglandular type. One was of the oculoglandular, one was caused by tick bite and the other two were not specified. It must be remembered that the glandular and typhoid types are rare. They may be contracted thru an unbroken skin and occur chiefly among laboratory workers as a result of infection from experimental animals. In thirty-one of these cases, the initial lesion was on the finger or hand; one was on the foot and one in the conjunctiva. Twelve of the patients did not know of any wound, scratch or break in the skin at the site where the initial lesion developed subsequently. All except the case caused by tick bite and the oculoglandular case killed or dressed a rabbit a short time prior to their illness.

The average incubation period was nine days and the average length of time from the onset of the illness to obtaining a positive agglutination test was twenty days. Even after returning to work many of these patients were debilitated for months. Any disease which causes such a loss of time is of great economic importance.

In thirty-five of the cases, debility was complicated and prolonged by suppuration of the affected lymph glands. All but two of these cases recovered. One fatality was that of an old negro and autopsy was not obtained. The other was the case of an Atlanta market-worker who had tularemic pneumonia with characteristic necrotic lesions of the liver and spleen. His case has been reported elsewhere.⁹

Dr. Aubrey Harper reports an especially interesting case: a white man, aged 25, complained of severe conjunctivitis of the right eye on December 29, 1930. He had fever, aching, general malaise and symptoms of in-



fluenza. He developed pneumonia of the right lung and eight days later this spread to the left side. The eye improved rapidly and was well in twelve days, but the temperature remained as high as 104 degrees F. for several weeks and sputum was bloody. After six weeks, aspiration revealed a serious effusion of the left pleura. He recovered sufficiently to be out of bed in eight weeks. There were no enlarged glands at any time but blood test on March 3, 1931, was positive for tularemia.

Although tularemia had been suspected all

along he denied having had anything to do with rabbits. Then it was learned that a nephew visiting him at Christmas had killed a rabbit and he and his aunt had prepared it for cooking. Both the boy and his aunt had developed the glandular type of tularemia. Doctor Harper suggests that some of the rabbit's blood had been left in the wash pan and his patient had gotten his ocular infection from that. The development of tularemic pneumonia from an ocular lesion is most unusual and interesting.

Of interest also is the instance of the

fisherman who killed a rabbit while on his way to fish and used the rabbit for bait, throwing away the carcass. On the way home he left some of the fish at the home of a neighbor. Three days later both the fisherman and his neighbor's wife who dressed the fish at her home came down with tularemia.

The purpose of this paper is to urge the consideration of tularemia in differential diagnosis and to stimulate the teaching of prophylactic measures. Indolent or granulomatous ulcers of tularemia must be differentiated from syphilis, sporotrichosis, primary lymph adenopathy, glanders, pustular acne and various skin lesions associated with regional lymph adenopathy. Disease running a febrile course such as typhoid fever, pyelitis, tuberculosis, undulant fever, lung abscess and bronchopneumonia may be simulated by the grandular or typhoid types of tularemia. Pulmonary manifestations of tularemia are quite common and may be confusing. Many cases at first thought to be influenza can be shown to be tularemia if this disease is considered. Conjunctivitis associated with enlargement of the preauricular glands and febrile or constitutional symptoms should be considered as possible oculoglandular tularemia. When the disease is thought of it is easy to obtain a blood specimen for examination by the State Board of Health which is well equipped to do this work for any Georgia doctor. The blood is collected and sent exactly as for a Wassermann test.

Although no specific curative measure except incision and drainage of suppurating lymph glands is known in this disease, the teaching of prophylaxis is very important. Hunters should be warned against handling rabbits found dead or which appear sick, sluggish or easily caught. Such rabbits should be buried or burned to prevent infection of other rodents. Hunters, market men and housewives handling wild rabbits in any way should wear heavy rubber gloves free from holes. Domestic tame rabbits raised for the market have not been known to be infected. Rabbit meat should be thoroughly cooked. There should be no red

meat or red juice left near the bone before it is eaten. There is no danger of infection from patient to patient, or patient to physician, but infection from the handling of experimental animals is extremely common. This work should be done only by immune individuals or those taking particular precautions.

Summary

A brief review of tularemia in Georgia is given. A plea is made for the consideration of this disease in differential diagnosis and the teaching of prophylaxis is urged.

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Discussion on Paper of Doctor Massee

Dr. Walter C. Goodpasture, Atlanta: To have been the victim of the first recognized case of tularemia in Georgia is an unenviable distinction, but on the other hand it qualifies me well for stressing some facts concerning this disease.

During the period since January 1925 I have observed a number of cases in this vicinity and a feature which Doctor Massee mentioned and which I wish to emphasize is the occurrence of sequelae which persist through years—six at least—in some cases. During the past forty-eight hours I have interviewed in Atlanta six persons who have had tularemia, the oldest case dating back six years and the last two and one-half years. Following is a brief summary of the history and present condition of these persons.

Case 1.—The patient had tularemia in 1925. He had been in good health up to that time, except for some chronic indigestion. He was bedfast for six weeks, away from work four months. He lost 20 pounds, from 145 to 125, and since that time his maximum weight has been only 132. He states that he is still very tired, and has indigestion far worse than ever before in spite of having his appendix out in the meantime. He has suffered from definite mental depression and distinct loss of memory, neither of which was present before the attack of tularemia. He has no hope of becoming perfectly well.

Case 2.—The patient had tularemia in January, 1925. He had previously been in good health. He had fever for four weeks, was bedfast for five weeks, away from work five months, lost 30 pounds but regained it in one year. This individual had a recrudescence of the disease after a few months, which was almost as severe as the original attack and was ac-

accompanied by pains and weakness, which gradually disappeared over a period of four years. He is now well.

Case 3.—The patient had tularemia in 1927. His previous health had been good. The fever in this case persisted for four weeks, the bedfast period was six weeks, the time away from work four months. He lost twenty pounds in weight, but regained it in a short time. He had a recrudescence one year later, with fever for a week. He considers himself well, except that he has distinctly less physical endurance than before this illness.

Case 4.—The patient had tularemia four years ago and is 80 years of age. She had fever for one week, remained in bed for one year. The loss of weight was slight, but she has toxic pains for which she treats herself all the time. She is now better than she was six months ago and expects to recover fully.

Case 5.—The patient was in good health until tularemia overtook him four years ago. He had fever two weeks, was in bed four weeks, and then back to work in a weakened condition for many months. His weight is not quite back to normal, and he still has persistent toxic pains.

Case 6.—The patient had tularemia in 1929. His health had been excellent up to that time. He had fever for three weeks, was in bed for five weeks, was away from work entirely for four months, and on half-time for four and a half months. He is still under weight by 15 pounds, is very weak, and his wife says he has practically lost his memory, which latter was good preceding this illness.

This gives, in brief, a picture of six victims of a disease ordinarily not taken seriously. Five are emphatic in stating that their health has not returned to normal. Weeks or months of total disability and years of partial disability put tularemia in the class of the most costly diseases in distress endured and in loss of capacity to work. I firmly believe that the causative organism lives in secluded regions—liver or lymphatics structures—for an indefinite period of time. Otherwise how could there be recrudescences and prolonged toxic states with all superficial evidence long since absent? I hope this sketchy report will stimulate public health propagandists to emphasize still more the seriousness of tularemia, and spur on some of us to secure autopsies when opportunities appear in order to investigate the remote pathology.

Dr. Pleasant H. Askew, Nashville: I do not rise to discuss Doctor Massee's paper, for I do not know enough about tularemia to discuss it, but I wish to report a case I have now under observation. One of our farmers inoculated some sick pigs and one was pretty sick at the time. Twenty hours later this man had a chill and fever, and seemed to be somewhat depressed. I was called and did not make a diagnosis, but treated him symptomatically. On the third day he called my attention to a small spot on his finger and complained that his shoulder hurt.

There was no enlargement of the glands. His fever was high for about five days, then it subsided and he got out of bed and went to work. He came to my office to have the little wound on his finger dressed and then I found an enormous enlargement of the axillary glands and diagnosed tularemia. I took a specimen of his blood and the diagnosis was verified. He is working every day, in spite of daily fever, night sweats, and extreme weakness, but I cannot get him to stop working.

As soon as I diagnosed this case as tularemia I looked up the treatment and one authority said to give quinine. I first gave an intravenous injection of dihydrochloride of quinine, and since then I have given from 15 to 20 grains of quinine a day, and a tonic. The patient went to see another physician in a neighboring town and he recommended arsphenamine. I told him I thought this would do no good. His temperature last Monday night was 99.5 degrees F. He is very weak, but will not stop work.

We cannot trace the attack to anything else but the sick pig that he handled. That pig was very sick and about two days later some of the larger ones in the bunch killed it, so we lost it. The man states that he inoculated the pig in the flank with the virus. He did not know whether the pig had a fever or not, but he put his right hand into the flank of that pig and supposed that he became contaminated with some of the blood from the inoculation wound at that time. When we sent back for the pig it had already been destroyed. I want to stress the short time of incubation—only twenty hours. Also we are sure that the infection came from the pig, as no other exposure to infection had been made.

We hope, in the near future, that some specific treatment will be found, as the treatment before us now has not proved satisfactory.

Dr. T. F. Sellers, Atlanta: I was greatly interested in Doctor Massee's paper because tularemia has for the past few years been a most fascinating problem with us at the State Board of Health Laboratory. Every specimen of liquid blood submitted to us for any purpose other than the Wassermann test is subjected to agglutination tests for typhoid, paratyphoid, typhus (Brill's disease), undulant fever (Brucella abortus infection), and tularemia. In many instances we have thus discovered unsuspected cases of typhus, undulant, and tularemia. It is interesting to note that the initial onset of these diseases are somewhat alike, although in the instance of tularemia the initial lesion, together with the regional adenitis, should be sufficiently suggestive.

Doctor Massee referred to the incidence of tularemia in 1930 as being unusually high. Of the forty-eight cases on record, nineteen were reported in January alone. It happened that in the latter part of December, 1929, there was an unusually heavy snowfall throughout northern Georgia. Many people took advantage of the snow to hunt rabbits and as a result the market was flooded with them for some

time thereafter. No doubt this contributed to the high incidence of human tularemia at that time. Many of the cases were among rabbit dealers and market men.

Doctor Massee referred to the two cases resulting from handling rabbit meat used as fish bait. I would like to mention two cases resulting from possum bites.

Of course, tularemia may not rank with typhoid fever as a major public health problem, but since the disease is reported to be increasing among wild rabbits, we may expect an appreciable number of human cases each year.

It occurs to me that the simplest method of control of human tularemia would be to prohibit the traffic of wild rabbit meat. Such measures have been recommended to the Southeastern Food-handlers Association.

Reference has been made to the fact that tularemia does not seem to be transmissible from man to man. Considering the highly infectious nature of the disease from animal to man, this is rather puzzling and is yet to be satisfactorily explained.

Dr. George L. Echols, Milledgeville: In regard to the transference of the infection from one human to another, I think this feature should be worked out.

In the cases reported by Doctor Goodpasture several of the patients showed loss of memory and a general feeling of lassitude, and were very slow in regaining their normal weight. This suggests the necessity of having very careful neurologic examinations to determine what they have. It may be that they have postencephalitic sequelae.

Dr. Joseph C. Massee, (closing the discussion) In regard to what Doctor Echols just said regarding the transference from man to man, there is in man probably some inherent resistance which is greater than that of the rodents. I think rodents may not be infected by the strain sent out from the laboratory, but yet it is specific.

Treatments used have been disappointing. Many substances have been injected intravenously and applied locally, and many tonics have been given without producing any characteristic or demonstrable effect on the disease. The only hope we have at present is that we will be able to develop an immune serum treatment.

When any of you see a case of tularemia in the first ten days, before the patient develops agglutinins and immune bodies, it would be advisable to get some immune blood from another person who has had the disease. The blood must be typed and all precautions necessary for transfusions must be used if you wish to employ the whole blood intravenously. If you wish to use the serum you may let the blood clot in the icebox over night or citrate and remove the cells. Whole blood may be used intramuscularly, in the gluteus maximus muscle, without the precaution used in transfusions. I hope if any of you find it possible to do so you will use this treatment and report the results.

A CLINICAL STUDY OF DISEASES OF THE MAMMARY GLAND*

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The material used for this study was selected from records accumulated in my private practice and in the Emory University division of Grady Hospital. In the former, the patients (with three exceptions) were white; in the latter, all were negroes.

From my private records I have selected 171 cases; 131 benign and 40 malignant. About 25 per cent of the benign cases were subjected to operation and the diagnosis confirmed by histologic study. The same is true of the malignant tumors. The diagnoses in the unoperated cases were based upon the clinical evidence secured during the examination of the individual cases.

I have been able to keep in touch with about 50 or 60 per cent of the benign unoperated cases for varying periods of time. Some of those which I considered borderline have been operated upon by other surgeons and, in some cases, I have been furnished with a diagnosis.

In two cases a radical operation was done on benign lesions under the impression that they were malignant. One proved to be a thick-walled cyst, causing marked retraction of the nipple; the other was an encysted abscess, or galactocoele, surrounding by a thick area of mastitis. Had I observed the rule (which I have now adopted), of having a routine examination of frozen section at operation, these patients would not have been subjected to a radical operation.

Since Wesley Memorial Hospital was moved to its present location in the fall of 1922, 30,532 patients have been admitted. Two hundred and twenty-two of these had breast lesions, of which 110 were cancer, making a ratio of one malignancy to 277.5 admissions. Forty-six had chronic mastitis, twenty-six adenomas, nine adeno-fibromas or fibroadenomas, and eight cysts or cystic mastitis. This does not include the acute infections.

During practically the same period, 41,803 patients were admitted to the Emory

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University division of Grady Hospital, 115 of whom had breast lesions. There were eighty malignancies, or a ratio of one to 522.5 of the total admissions. I have also a record of thirteen other malignant breast cases upon which I operated before 1921, making a total of ninety-three malignant tumors in the Grady Hospital series. There were eighteen fibromas and adeno-fibromas; the remaining seventeen were classified under several heads. Of the ninety-three malignant tumors, twenty-one were inoperable. Some of them were given x-ray and one was given Koch's antitoxin. Although the directions were carefully followed, the patient was not benefited in the slightest. I, personally, operated on fifty-nine, with one hospital death—the result of a post-operative pneumonia. I have had no hospital mortalities among my white patients.

Time will not permit even a casual discussion of the numerous diseases to which the mammary gland is heir; so we must pass hurriedly over those most frequently encountered.

At birth, the mammary gland consists of one or more stems of epithelial cells extending into the connective tissue superficial to the deep pectoral fascia. Within the first few days of life certain changes in these cells begin. It is not definitely known whether they are due to bacterial invasion or to fatty degeneration of the cells in the center of the stem. At any rate, the area around the nipple presents an inflammatory reaction varying greatly in extent and, at times, causing considerable alarm. This condition is known as mastitis neonatorum. However, the symptoms subside in a short time and do not, as a rule, require treatment.

From the end of this period to puberty, the gland in both sexes remains inactive. Again, from about twelve to fifteen years of age, certain changes begin to take place. The gland enlarges and apparently takes on active growth. As a rule, these changes in boys are so insignificant that they attract little or no attention; but, when considerable enlargement occurs (especially if it is unilateral), it causes great anxiety. I have included in my series four such cases: one in a boy, and three in girls; two of the girls were colored. In all of

them the condition subsided without leaving any trace of disease. In the female the normal development of the breast follows so closely in the wake of this temporary activity that it seldom causes alarm. When, as occasionally happens, the breast becomes firm and painful, we are consulted and must give the condition a name and treatment. Several names have been suggested, but perhaps hypertrophy of adolescence is most applicable.

During the early years of life various anomalies of growth may occur, either in one or in both breasts; but, unless they present undue features, they require nothing more than reassuring the parents that surgery is not required.

Massive hypertrophy, either bilateral or unilateral, is a matter of considerable moment, as the burdensome weight of the glands causes great inconvenience. I have operated on several cases, thereby giving great comfort to the individual. I remember one case sent me by a doctor who thought the massive breasts were malignant and had the patient and her friends scared into a panic.

Pain is a symptom which frequently taxes our ingenuity; but, in the absence of a palpable mass, it is so seldom an indication of cancer that we are safe in telling the patient that it is only a symptom due to some focus of infection. When it precedes the menstrual period and is accompanied by soreness, it requires little or no treatment. But when it persists during the interval between the menstrual cycle, it should have more serious consideration. The pelvis, digestive tract, teeth and tonsils should be searched for a possible focus; removal of the breast seldom gives relief if the cause is not eliminated. I have seen not only the pain relieved, but masses of inflammatory deposits clear up after removal of the offending focus.

Chronic or subacute mastitis, and cystic mastitis or the so-called involution changes which occur in the breasts of women during the fifth decade of life, are not infrequently accompanied by pain, which is a valuable aid in diagnosis. Pain was either the first symptom to attract the patient's attention or had been more or less present in about 60 per cent of my fifty cases of mastitis and cystic mastitis. Mastitis in the male is nearly always

due to trauma and, consequently, presents more or less pain and tenderness.

Mastitis may occur at any period of life. As already noted, it is fairly frequent in the second decade when the breast becomes full, round and firm, closely resembling the condition present in the latter months of pregnancy. In the late years of the third and early part of the fourth decade the picture is quite different; then, the whole gland may be involved or only one or more lobes. It is usually freely movable on the retro-mammary bursa and the margin well defined. When confined to one or two lobes the condition presents a different picture from the rounded outlines of an adenoma or the infiltrating margins of a carcinoma.

Age, social condition, lactation, etc., seem to play only a minor role in the etiology of mastitis and cystic mastitis. Sex excitement may have some influence during the latter part of the second and early years of the third decade, but I am inclined to the theory of the selective action of certain toxins generated in the intestine or arising from the tonsils or teeth. In younger women, the tendency is to recovery; in older women and during the involution period, cyst formations are almost inevitable.

Cystic mastitis, involution cysts, or the blue dome cysts described by Bloodgood undoubtedly are the result of a low grade mastitis. The areas of infiltration having been replaced by scar tissue, the ducts are obstructed and retention pools or cysts formed. These become sufficiently large to attract attention between the ages of 40 and 60. Fortunately for diagnostic purposes, they are rarely solitary, do not become attached to the skin or deep structures, and do not form metastases. The rate of growth is slow and they are more often seen in thin or only moderately fat individuals.

The treatment is a debatable question. If we accept the theory that cancer develops at the junction of healthy tissue with scar tissue, the breast of a woman past thirty-five in which there are areas of mastitis and cysts forms a fertile field for malignancy and should be removed. Yet, some men who have had abundant opportunity for observation and means of conducting thorough follow-

up claim that such a breast is in no more danger of cancer than a healthy one. However, knowing as I do that there is little prospect of any treatment producing a cure, I feel it my duty to advise its removal.

A discharge from the nipple was presented in twelve of my 130 benign cases, but not present in any of my white cancer cases. However, it was present in several cancers seen at Grady Hospital and also in several cases of mastitis there, which are not included here. In one of my private colored patients there was a history of bloody discharge with remissions and exacerbation. While the nipple was discharging freely there was no pain or lump; as soon as the discharge stopped a mass formed. At operation we found a papilloma about 3 cm. in diameter attached by a thick pedicle to the inner surface of the cyst wall. Several other cases presented interesting features, but space will not permit us to mention them.

The treatment of patients with discharging nipples is a much discussed question. The use of the breast pump has never appealed to me, as I am afraid of the trauma. I have, however, advised it in two or three cases, and it may be permissible where there are definitely varicose ducts. But, where the discharge seems to come from an area of mastitis I do not feel safe in using it. I prefer to cover the breast with some soothing application and apply a firm binder just tight enough to exert gentle pressure and limit the motion during exercise. This dressing should be applied at night as well as during the day. If the discharge persists and annoys the patient, operation is to be advised.

It is almost impossible to differentiate between a benign and a malignant tumor, as many of them are regardless of size and time of existence borderline conditions. After my experience with this series of about fifty benign and 135 malignant neoplasms, I feel more and more my inability to be sure of an early diagnosis, no matter what the history or clinical picture presents.

First in importance is the age of the patient. I have seen only one cancer in the breast of a white woman under 30 years of age. However, malignancies not infrequently occur in the breasts of negro women during

MAMMARY GLAND
BENIGN LESIONS—WHITE PATIENTS
Cystic Mastitis—25 Cases

Sex	No. of Cases	Youngest	Oldest	Age by Decades			
				20-30	30-40	40-50	No age record
Female	25	22	55	1	5	13	6

Chronic Mastitis—36 Cases

Sex	No. of Cases	Youngest	Oldest	Age by Decades				
				14-20	20-30	30-40	Over 50	
Male	5	14	53	2	1	1	1	
Female	31	17	48	10-20	20-30	30-40	40-50	No age rec.
				1	9	15	4	2

Discharge from Nipples—15 Cases

Sex	No. of Cases	Youngest	Oldest	Age by Decades				
				20-30	30-40	40-50	50-60	70
Female	15	29	70	1	9	2	2	1

MAMMARY GLAND
BENIGN NEOPLASMS—WHITE PATIENTS
Adenomas and Adeno-Fibromas—29 Cases

Sex	No. of Cases	Youngest	Oldest	Age by Decades			
				15-20	20-30	30-40	No age record
Male	1	60	60				
Female	28	17	40	5	6	8	9

MALIGNANT NEOPLASMS—WHITE PATIENTS
Carcinomas, Various Types—40 Cases

Sex	No. of Cases	Youngest	Oldest	Avg. Age	Age by Decades						
					20-30	30-40	40-50	50-60	60-70	70-80	No age rec.
Female	40	28	72	49.7	1	5	10	13	3	1	7

MALIGNANT NEOPLASMS—COLORED PATIENTS
Carcinomas, Various Types—93 Cases

Sex	No. of Cases	Youngest	Oldest	Avg. Age	Age by Decades						
					20-30	30-40	40-50	50-60	60-70	70-80	No age rec.
Male	1	(about 60 years of age)									
Female	92	27	81	42.1	4	23	20	11	6	3	26

their third decade. Adenomas in the Caucasian and fibro-adenomas and fibromas in the negro are frequent in the young—well defined adenomas occurring about the middle of the second decade in the former, and fibrous tumors still earlier in the latter. In the breast of a middle-aged woman, there is no essential difference or line of cleavage between a benign and an early malignant tumor.

In cancer, the absence of pain—as contrasted with pain in mastitis—is very important. It was present in only a small number of the neoplastic cases under consideration, while it frequently occurs in mastitis. The social or financial condition of the patient offers no aid. Although in this series the majority of women were, or had been, married, in another series which I studied a few years ago the reverse was true. Lactation seems to exert an important influence in some

groups, whereas in others it does not. The rate of growth or sudden activity in an otherwise latent tumor is a most important positive symptom of malignancy.

When the lesion has reached a stage where positive signs of malignancy are present, it is almost too late to benefit the patient by any procedure now known to us. We have certain clinical rules by which we can guide our lines of procedure and our prognosis. A cancer in the breasts of a fat woman is almost surely fatal; the same is true if it occurs during pregnancy or lactation. Therefore, the question arises: Should we advise operation in these patients? If the tumor has been subjected to frequent rough examinations or has been massaged, or if the patient has been actively engaged in manual labor (such as is frequent with our colored woman), the prognosis is bad. The character of the growth,

the presence of attachment to superficial or deep structures, and metastases to the nearby lymph nodes influence unfavorably the prognosis.

Recently methods have been devised for more accurately estimating the life expectancy of a patient. By grading the cells we are able to give a very definite estimate in the majority of cases. In the less cellular forms (or grades 1 or 2), where the cells approach more nearly the adult type, the prognosis is good even though the growth is considerably advanced as regards metastases and attachments. In grade 3, where the cellular element is abundant and the cells are of a rapid growing type, the prognosis is almost 100 per cent fatal even though the case is seen early and is treated radically.

Nevertheless, we must agree with the statement made by John B. Murphy more than a quarter of a century ago that "it is the time and not the extent of the operation that influences the prognosis." The only sure line of procedure is to remove, as soon as seen, all well-defined neoplasms in women over 35 years of age. By making frozen section examinations in the operating room we may govern the extent of procedure by the pathologist's report. This has a double value: in many cases it saves the patient a mutilating operation; in early and doubtful cases, it assures the advantage of a thorough operation.

I am not prepared to endorse either pre-operative or post-operative radiation, but I do believe it should be resorted to in inoperable cases. It may add a few months of life, relieve the pain, and give a certain moral support that is lost as soon as hope is abandoned by the physician. Subcutaneous or intramuscular injections of non-specific protein substances—sterile milk, bacterial products, and even some of the endocrine gland extracts—seem to give relief and retard the growth of certain neoplasms.

In conclusion I wish to emphasize the following points:

1—Age is a most important factor in diagnosis. According to the best statistics obtainable and from my own experience, there is not one chance in 500 that a lump in the breast of a woman under 25 is cancer. The possibility of malignancy increases slowly for

the next fifteen years, then rapidly for the following twenty years, so that in the fifth and sixth decades of life all solitary lumps should be considered malignant until proved otherwise.

2—Pain is a most important negative symptom. It is extremely rare that a neoplasm, either benign or malignant, causes pain, whereas it is a frequent symptom of so-called chronic mastitis.

The rate of growth is another important factor at any time, but especially within the cancer age. A single lump which has increased rapidly is almost certain to be a malignancy. Early cancer is curable. Late cancer is surely fatal.

3—The method of examination of the mammary gland has much to do with life expectancy of the patient. Rough manipulation reduces the chance of recovery. It breaks off the peripheral cells which are the most active, presses them into the blood vessels or lymph channels, and scatters them through the organism. By gentle manipulation we can obtain all the information necessary.

4—Our best clinical aids in making a prognosis may be summed up as follows: A fat woman is rarely cured; cancer occurring during pregnancy or lactation is nearly, if not always, fatal. Cancer of the inflammatory type—that which rapidly infiltrates the skin, giving it the peculiar thick orange peel appearance over the breast and perhaps the chest—will not yield to any treatment.

If the tumor is recent, firm, and movable, and there are no palpable lymph nodes in the axilla, there is good reason to tell the patient that she has 75 chances out of 100 for recovery. This ratio, however, diminishes as the growth becomes attached to the skin and deep structures and metastatic nodes appear in the axilla. Of course, the greater the extent of this involvement, the less the chance of recovery. The possibility is nil if there is involvement of the lungs or bones.

5—From our observations at Wesley Memorial Hospital, where white patients are treated, there was one carcinoma of the breast to 277.5 admissions; at the University division of Grady Hospital, where colored patients exclusively are treated, there was one carcinoma of the breast to 522.5 admissions. It

would appear, therefore, that white women are about twice as susceptible to carcinoma of the breast as negro women. Negro women consult us much later than white women, thereby greatly decreasing the chance of a cure. Again, it is impossible to make any follow-up observations in negroes because they move so frequently or give an improper address.

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MYCOLOGY

Its Relation to Clinical Medicine in the South

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More and more the average medical man is beginning to realize that fungi (moulds) often play a part in human disease. The pathologist informs him that his case of osteomyelitis of the jaw was caused by an actinomycete and that the cold abscesses in the groin were caused by a yeast. Then the dermatologist tells him that the much advertised "toe-itch" or an eczema of the hand is often caused by a fungus known by the euphonious name of "epidermophyton," and that at least 20 per cent of the dermatoses encountered in these South Atlantic States are caused by some type of fungus. There is evidently much smoke in the air and of course there must be some fire at the bottom of it—but the question is how much fire and how to get to it.

The average physician is quite aware of the many obstacles in the way of making diagnoses of fungus infections. Besides the elimination of mycological factors in a differential diagnosis in the clinic, the difficulty stretches on into laboratory territory. In fact the shortcomings are probably more often met in the laboratory because the average pathologist being untrained in things mycological cannot shed more light on those infections of the sub-acute or chronic types which are so difficult of diagnosis clinically. Just as the general practitioner readily admits that he has not mastered dermatology or ophthalmology as he has the other specialties,

just so the average pathologist must readily admit that he has had little or no training in mycology and thus approaches such problems with a great deal of hesitation and unwillingness.

The explanation for most of these difficulties is not hard to find. Following the beautiful and far-reaching works of Pasteur, Koch, Lister and others of the last century, bacteria rightly assumed a place of paramount importance in medicine, and the more infrequently encountered fungi were lost in the brilliance of the bacteriological light. Both clinically and pathologically cases caused by fungi occur much less commonly than do those caused by bacteria, and it is practically certain that they will never assume the importance of bacterial infections. And then, too, mycological technic and classification is radically different and if anything more involved than that of bacteriology. Due, partly to the supposed rarity of fungus infections, and partly to a general lack of interest on the part of the medical profession, mycology as a study has been neglected or completely left out of the medical college curriculum, and is an unknown quantity to the average medical student. Thus, in contrast to bacteriology, mycology has attracted comparatively little notice, and slight attention has been paid to the enormously important role that fungi play in nature and to the evil they are capable of causing, as well as the beneficent functions they may perform.

The classification of fungi or moulds is as confusing as it is extensive and has no place in a paper of these dimensions. In contrast to bacteria, fungi are much more differentiated and thus higher types of plant life. They are for the most part pure saprophytes. They are generally much larger than bacteria, more difficult to kill, and like any garden plant, their growth varies somewhat with the soil in which they are planted. The manner and type of both growth and reproduction may vary remarkably with its environment. Their number is legion. All these qualities only enhance the difficulties of identification and classification.

There are at least ten diseases, caused by fungi or moulds, that may be more or less commonly encountered in these South At-

lantic States. They are as follows: (1) Epidermophytosis, (2) Actinomycosis or Mycetoma, (3) Blastomycosis, (4) Sporotrichosis, (5) Bronchomycosis or Streptothricosis, (6) Tinea versicolor, (7) Erythrasma, (8) Favus, (9) Trichomycosis, and (10) Sprue, the etiology of which has not been definitely established. The diseases Tinea Imbricata, Tinea Nigra, Pinta, etc., are, except in imported cases, confined to the tropics and do not properly belong in this discussion.

Epidermophytosis.—By this term we mean all diseases caused by fungi belonging to the genus of fungi, "Epidermophyton." These fungi, although culturally different, have a similar morphology and may cause a variety of maladies. They are the cause of ringworm of the scalp, beard, body, groin (dhobie-itch), hands, feet, and nails. As the name suggests they rarely are the cause of any infections other than very superficial skin conditions, but they occasionally may produce large granulomatous tumors when infecting the tissues in or around the hair follicles (Tinea Kerion). In the Southern States, epidermophytosis of the feet and hands is rapidly becoming a public menace. The Surgeon General of the United States recently called attention to its spectacular increase within the last few years, stating that probably 75 per cent of the population of the Southern States either had the disease or had had it in the past. This is in all probability due to the increased public passion for swimming and golf clubs. While the disease, when confined to the feet, frequently produces only a "scalding" between the toes and a slight discomfort from itching, it may suddenly and without warning become an acute pustular, exceedingly painful condition which may keep the patient off his feet for weeks. When epidermophytosis attacks the groin or perineum (Dhobie-itch), it keeps the patient in a constant turmoil, and by spreading to the anal region, becomes responsible for most of the pruritus ani that goes from doctor to doctor for relief. In children these fungi may produce the well known resistant ringworm of the scalp, and they may attack the hairs of the beard in adults, causing deep pustular granulomas which leave scars.

Actinomycosis or Mycetoma.—By either

of these terms we mean the peculiar cutaneous, sub-cutaneous or visceral tumefactions that are the result of the invasion of these tissues by fungi belonging to a variety of species. Mycetoma of various parts of the body is much more common than our textbooks would lead us to believe. Many cases have been passed up as syphilis or tuberculosis, when an energetic search for fungi would have stabilized a positive diagnosis. The fungi enter the tissues usually by means of a foreign body, and the fungus growing slowly enters the adjacent tissues, and in some cases pass by way of the lymphatics, producing the slowly developing not especially painful nodules and sometimes draining sinuses, so admirably described by the veterinarians as "lumpy jaw." Contrary to general belief the disease is not contagious either from man to man or from cattle to man, and association with cattle is no requisite to a diagnosis. Hard, wooden-like indurated nodules or tumors that are not especially painful, or chronic multiple draining sinuses not associated with tuberculosis, occurring in the cheek, neck, chest, foot or hand should certainly force a consideration of mycetoma as a probable diagnosis. The fungi, although difficult to cultivate, may be found in the pus discharges and curettings of the sinuses by microscopical examination.

Blastomycosis.—This disease is caused by a large variety of fungi, all of which may be classified as "yeast-like fungi," i.e., fungi that reproduce in culture and in tissues by means of "budding." In this section of the United States, Blastomycetic infection is, for the most part, confined to the skin, producing a superficial pustular eruption of the webs of the fingers and hands. However, these fungi may produce deep sub-cutaneous pustular granulomas ulcerative or serpigemous in character. Blastomycosis may become a generalized condition, infecting all the viscera, producing brain abscesses or meningitis, a condition known as "coccidioidal granuloma." Many of cases of coccidioidal granuloma have been reported from California and recently Toepel reported a case of generalized blastomycosis from Atlanta, Georgia. The fungi generally can be demonstrated in the discharges of the localized types and in the

blood or spinal fluid of the generalized cases. Blastomycosis is not an uncommon disease.

Sporotrichosis.—The causative fungus of this disease, known as the sporothrix, is closely allied to the blastomycetes. The disease generally begins on the extremities, the initial lesion being a bruise, scratch or thorn-prick, producing an ulcer which will not heal. Within a few weeks deep nodules appear along the draining lymphatics, some of which may become deep ulcers. Thus is produced the characteristic clinical picture, i.e., nodules and ulcerations following the course of the lymphatics, having a linear, serpigenous arrangement. Sporotrichosis is frequently mistaken for syphilis, tuberculosis or tularemia, and the finding of the causative fungus is the only definite means of differential diagnosis. The fungus is not easily found in the discharges or infected tissues, but grows well on the ordinary sugar medias, from material taken from a deep abscess, in about ten to twelve days at room temperature. Occasionally one sees generalized cases and bone infection is not at all uncommon.

Bronchomycosis or *Streptothricosis*.—The term "streptothricosis" implies that the fungal diseases in this group are caused by fungi rather loosely labeled as "streptothrix." However, such is not the case. These terms are used to denote a clinical syndrome characterized by cough, hemoptysis, loss of weight, or in short, the usual signs of pulmonary tuberculosis, but in which the causative factor may be any of a variety of different fungi. These cases often find their way to tuberculosis sanitariums, and are sometimes treated for months as tuberculosis, although the examiner has been unable to demonstrate the tubercle bacillus. Careful examination of the bronchial secretions will sometimes reveal strands of filamentous fungi or yeasts, but cultivation of these secretions will more often lead to a correct diagnosis. In any instance the diagnosis of bronchomycosis is difficult and necessitates the careful and prolonged observation of the patient.

Tinea Versicolor and *Erythrasma*.—These two diseases, although caused by different fungi, have a similar clinical appearance and significance, so may be grouped together. Both diseases are characterized by the forma-

tion of very thin, superficial, brown scales, tinea versicolor usually appearing on the chest, back or abdomen, and erythrasma in the groin or axillae. Neither disease causes much discomfort, the patient usually seeking relief because of the rapidly spreading pigmentation. The fungi in both instances can easily be found in the scales scraped from the disease areas. The fungi have not been cultivated.

Favus.—This disease, so named, because clinically its appearance is sometimes like that of a honey-comb, is a highly contagious variety of ring-worm. It is usually confined to the scalp, but may appear on any portion of the body. It generally appears in the form of dark yellow crusts having a depressed center, the thickened crust becoming so elevated that it becomes shot with small openings, producing the honey-comb appearance. The disease produces denudation and scarring of the scalp very rapidly and treatment in the form of epilation of the hair should be instituted immediately. The fungus may be demonstrated in the crusts and the hair itself and can be easily cultivated. Favus is fortunately uncommon in the United States, most of the cases being imported. Recently a few cases were discovered in LaGrange, Georgia, and one case has been seen in Atlanta in the last year.

Trichomycosis.—This fungus disease, generally considered harmless, is characterized by the appearance of a number of small nodosities attached to the axillary hair, made up of a conglomerate mass of bacteria and fungi allied to the actinomycetes. Since some of these fungi causing this condition produce a red or yellow pigment, the disease is usually responsible for the colored perspiration sometimes complained of. Weidman has reported a case of trichomycosis associated with black tongue and believes the two conditions to be caused by the same fungus.

Sprue.—It is rather doubtful if sprue should be considered as a fungus disease. It is characterized by a very severe gastroenteritis of a chronic character, associated with weakness, anemia, and large numbers of liquid, foamy stools. Many observers have discovered large numbers of yeast-like fungi in the mouths and stools of patients suf-

fering with sprue and the first investigators jumped to the conclusion that the yeasts were the causative factor. Other investigators have found that the *monilia psilosis* and the *monilia albicans* occur in sufficient numbers in the stools of normal persons to throw serious doubt on these conclusions. It has been intimated that sprue is a dietary deficiency disease.

When examining tissues or discharges for fungus elements, there are certain characteristics of fungi that should be considered. Fungi do not stain well with the ordinary stains and it is, therefore, best to examine the material unstained. They are practically translucent when unstained and thus a small amount of reflected light should be used in the microscope. It is best in most instances to mount the specimen in a 20 per cent sodium or potassium hydroxide solution and allow the caustic to dissolve out the cellular tissue, thus leaving the fungus elements more evident. Fungi grow best on acid mediums which contain some one of the common sugars such as dextrose, lactose, maltose, etc. It is best to plant portions of the discharge or skin on the surface of the solid media (except when growing anaerobic fungi) and allow it to incubate at room temperature for at least two weeks. Thus the growth of bacteria is inhibited by the acid medium and the low temperature.

In a paper of these dimensions it is only possible to take a short airplane view of the fungus diseases that occur in the Southern section of these United States. It is hoped that this short paper may call attention to the fact and stimulate the thought, that we have not given the attention to fungi as a cause of human disease, that these all too common vegetable parasites deserve.

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From 1924 to 1928, there was an increase in the prevalence of pellagra in the United States. In 1929 the reported incidence of the disease decreased somewhat, and there was a further decrease during the year 1930. During first 6 months of 1931, 16,385 cases were reported to P.H.S. as compared with 13,359 in 1930.

—U.S.P.H.S., January 4, 1932.

IMPRESSIONS OF THE WHITE HOUSE CONFERENCE ON CHILD HEALTH AND PROTECTION*

M. A. EHRLICH, M.D.

Bainbridge

I am addressing you today to lay before this body of fellow practitioners the impressions gained at the White House Conference on Child Health and Protection, in Washington, February 19-21, 1931, and also the impressions gained by others I talked with while there.

The first White House Conference was called on December 25, 1908, by President Roosevelt to consider primarily the care of dependent children. Their recommendations were: that children should not be removed from their own homes by reason of poverty; that the causes of dependency should be studied and, so far as possible, ameliorated or removed; that for children, who had to be removed from their own homes, foster homes in families are, as a rule, desirable; that institutions for children should preferably be on the cottage plan; that agencies for the care of children should be incorporated, with State approval, and that the State should inspect their work; and, that a Federal Children's Bureau should be created "to investigate and report upon matters pertaining to the welfare of children and child life among all classes of our people, and shall especially investigate the questions of infant mortality, the birth rate, orphanage, juvenile courts, desertion, dangerous occupations, accidents, and diseases of children, employment, and legislation effecting children in the several States and Territories".

The second White House Conference was called May 5-8, 1919, at the request of President Wilson, and with funds supplied from the President's War Emergency Fund. This Conference was divided into five sections as follows: economic and social basis for child welfare standards; child labor; health of children and mothers; children in need of special care; and standardization of child welfare laws.

*Read before the Second District Medical Society, Bainbridge, Ga., April 10, 1931.

Ten years have passed and it is believed that children are living under better home conditions, are better nourished, better educated, and better equipped to meet the demands of adult life. But we do not know whether those beliefs are based on facts or merely reflect the desire that children should have all the things which will make them finer citizens.

The White House Conference on Child Health and Protection called by President Hoover was charged with getting at the facts so we may have a measure of the quality of children in terms of their physical health, their mental equipment, and their social well-being.

At the last meeting the Secretary of Interior, Dr. Ray Lyman Wilbur instructed us to: "Interpret your impressions in your sections." It is these impressions that I wish to lay before this body.

The Conference was attended at personal expense, only after receiving personal invitations from the President of the United States and the Secretary of Interior. These invitations were sent to all branches of the medical and allied professions. Although this conference was called in the name of child, every branch of medicine was represented, as you can easily see that all branches relate in some way to children.

The pediatrician deals with the sick and well child; the orthopedic surgeon, children's surgeon, and the general surgeon deal with surgical conditions; the general practitioner with the adult as well as the child; the internist with the diagnosis; the obstetrician with the birth of the child; the gynecologist with the condition of the mother as regards child bearing; the anatomist with the physical makeup and development of the child; the physiologist with the function of the different organs; the psychiatrist and psychologist with the mental behavior; the research worker with different branches in relation to children; the dentist with the teeth and mouth; the nurse with the care of the sick; the hospital superintendent as he controls the sick child; the welfare workers, the clinics, the foster homes, the summer camps, the orphanages, the day nurseries, etc., as they care

for the child in different capacities. Last but not least is the public health service.

You can easily see that this is the first attempt to bring together and correlate all the different branches of medicine and its allied professions. Each branch is directly connected with every other branch and they must work together for the welfare of the nation as a whole and the entire field of human existence.

The people of this country are demanding of its doctors more instructions in health education and more service, and it is therefore up to us to supply their demands.

The board of health was formed because of the need and desire of the people of this country for instructions in health; sanitation, especially against malaria and hookworm in this section; the care of milk; teaching the value of prophylaxis against smallpox, diphtheria, and typhoid fever; screening of the houses, treating and draining water holes against malaria; compulsory vaccination and inoculation of school children; vaccination and inoculation in rural sections when smallpox or typhoid appears; sewage disposal as a prophylaxis against hookworm; treatment of the school children infected with hookworm and other intestinal parasites; yearly or bi-yearly examination of the schools and a record of the corrections made by the physicians. They are to be complimented upon the wonderful success so far obtained.

One of the doctors in the health department said to me, "We doctors, and I am a physician, have been asleep to the trend of modern times and it is time we woke up and took charge of the prophylaxis work that the board of health has taught the people to take, and incidentally taught you to advise. The board of health earnestly desires that you take charge of this work in order that they may devote their time and energy to other fields that you are neglecting".

There is yet a broad field of endeavor for the practicing physicians and it is up to us to wage an active campaign through personal effort and through our medical societies to convince the laity of the value of periodic medical and dental examinations from birth to old age. At these examinations we can

find an enormous number of conditions that are amenable to medical treatment as well as many more that can be corrected by surgical means. The measures of sanitation advocated by the board of health should be stressed by physicians. Pre-school and adult prophylaxis, which is hardly ever touched by the board of health is certainly our rightful field of work. Smallpox vaccinations can be given the day after birth; diphtheria inoculations at three months; and typhoid at one year of age; dental examinations and corrections should start in the second year. Prenatal and postnatal care and instructions certainly is the work of the family physician as well as of the obstetrician and pediatrician.

We physicians, regardless of the branch or field we are in, must work together and destroy factionalism. Otherwise we are doomed to some form of local, county, state, or national control of medicine. Already enormous strides have been made in the form of charity hospitals, charity clinics, charity this, and charity that. Now if these charity organizations would treat only charity cases all would not be so bad, but, as you all know, there is no trouble even for the wealthy to obtain free treatment in these institutions; the middle class certainly does receive a great amount of treatment and these cases should rightfully go to the practicing physician. Yet we men whose existence, happiness, prosperity, and well-being are so vitally affected, are doing practically nothing to combat a movement which may eventually lead to our own extermination, in the form of a free hospital with salaried employees in every city or county.

We in the small towns have very little of this to contend with at the present time but in some sections of the country charity hospitals are growing rapidly. This is taking work from all the practicing physicians in the locality. Clinics are on a rapid increase. The social workers are gradually getting more and more powerful and slowly infringing upon the field of medicine.

Continually the local doctors are called upon to do more and more free work by state and national societies and many of these patients are able and should pay for the services rendered. Now if we do not respond to their

demands it will not be long before they will send their own doctors and dentists into our localities to do this work, thereby making it appear that we are not competent to take care of the needs of our people.

Every time a charity hospital or charity clinic is opened, every time a group hospital or group clinic is opened, every time outside men are sent into our localities to do work without the patients paying for the services, just so often we are deprived of that financial aid that we so richly deserve. Each of these is infringing not only upon the general practitioners and specialists but also upon the dentists and the private hospitals.

Should this condition of affairs continue, and it will continue unless some change is made, and made soon, our private hospitals will be forced to close their doors and the practicing physicians will find that they are no longer able to make a livelihood in private practice and will be forced to work in these hospitals or clinics or give up the practice of their profession.

The handwriting is on the wall. We must force ourselves to see it. We must protect our own interests. We must forget our petty troubles. We must work together in peace and harmony. We must keep up with the advances of our respective fields. We must study our cases thoroughly. We must give the best we have at all times. We must strive to bring back normal health and normal strength as quickly and as permanently as possible. We must advise and practice corrective medicine and surgery. We must advise and practice preventative medicine. We must advise and practice corrective and preventative dentistry. The medical and dental professions must work closer together. We must place community health above personal pecuniary gain and personal fame. We must work together as a body, our local medical societies, in the education of the laity to the value of the physicians as a whole and the different specialists in particular. We must wage an active campaign to enlighten the laity as to the wonderful things that medicine has and can accomplish and teach them in many respects how it has been done.

This means that we should deliver talks in the lay societies and elsewhere on the ad-

vances made in medicine, surgery, and dentistry: on health measures; prophylaxis; health and dental examinations; corrective medicine, surgery, and dentistry; preventative medicine; animal experimentation, etc.

In conclusion I wish to call to your attention the menace of some form of so-called state medicine, of which we are in dire danger.

Our maternal mortality and morbidity is greater during labor than that of any of the civilized countries. Our fetal mortality and morbidity is entirely too large. Our infant and child mortality and morbidity certainly could be reduced. Our mortality and morbidity in almost every condition is not as low as we could desire.

The amount of time devoted to some subjects in our medical schools is too small. This applies particularly to children, their diseases and feeding.

Our nurses are not sufficiently trained in the care of children due partly to the lack of sufficient number of childrens beds available in our hospitals; partly to insufficient instructions; and partly to lack of appreciation that every child is individually different.

The people of this country are expecting its doctors to render better service and are expecting better results, and failing to obtain this they are turning to the quacks, isms, and cults that are flourishing around us. They believe that there is entirely too much disagreement among us and that we are thinking too little of the welfare of our patients and too much of our individual selves.

I wish to call your attention to work that is being done by other organizations that are making powerful inroads into our professional work and standing.

We must be the teachers of the laity in all methods of health advancement. We must work together for the advancement of our profession and destroy factionalism. We must give service and satisfaction and protect ourselves from isms and cults that are growing around us.

Before concluding I wish that this body would pass a resolution and go on record for favoring enlightenment of the laity by an active campaign through our medical societies.

TRICHOMONAS VAGINALIS VAGINITIS*

WALTER R. HOLMES, M.D.

Atlanta

Leucorrhea is a fairly common complaint among gynecological patients. A frequent cause of an abnormal vaginal discharge and one that is often undiagnosed, is a form of vaginitis due to an infection with the trichomonas vaginalis.

Although Donne in 1837 first described the trichomonas vaginalis, it has only been in recent years that the pathogenicity of the organism has been appreciated. It may be said that there is still some dispute as to whether the trichomonas vaginalis is responsible for the type of vaginitis associated with its name. However, the weight of clinical and experimental evidence would seem sufficient to accept this protozoa as the cause of a definite type of vaginitis associated with a profuse, purulent, irritating leucorrheal vaginal discharge.

The symptoms and clinical picture of trichomonas vaginalis vaginitis is characteristic. The patients complain of a constant free vaginal discharge, often of disagreeable odor. There is usually associated symptoms of local irritation and itching which may be severe enough to disturb the patient's sleep. Dyspareunia is not an infrequent symptom. The discharge persists in spite of the frequent use of douches. Many of the patients give a history of prolonged courses of local treatments without relief of symptoms. Pelvic examination reveals a varying degree of irritation and inflammation of the external genitalia. There is a free yellowish discharge from the vaginal orifice suggestive of gonorrhea but without the characteristic involvement of the accessory glands found in a gonorrheal infection and with negative smears. Speculum examination shows the vaginal mucous membrane inflamed and sensitive. Bathing the vaginal walls and filling the vaginal vault there is found a sero-purulent exudate which contains bubbles of gas giving the discharge a characteristic foamy appear-

*Read before the Medical Association of Georgia, Atlanta, May 15, 1931.

ance. The secretion is strongly acid in reaction. On removal of the secretion, the vaginal walls are found covered with small red papules which gives a granular appearance to the vaginal mucous membranes. The cervical canal is not affected. When once recognized, the clinical picture is typical and a diagnosis can be made from the appearance of the vaginal walls and the foamy character of the discharge. The diagnosis may be confirmed by finding the trichomonas in a smear. This may be accomplished by placing a drop of the secretion from the vaginal vault on a warm slide, covered with a cover-glass and examined fresh with the high dry lens. Examination of the field will reveal the active movements of the flagellated organisms among the epithelial and pus cells in the smear.

Description of the Trichomonas Vaginalis
 "The trichomonas vaginalis is a protozoa. The organism varies in shape and size. Usually, however, it is larger than a polymorphonuclear leucocyte, but smaller than an epithelial cell. In shape they are rounded, spindle, or pyriform. The front end is rounded and from it protrude four flagella which arise from a common stem. An undulating membrane runs somewhat spirally along the entire body to the posterior end which is usually pointed. The protoplasm of the organism is not homogeneous but consists of myriads of fine granules. In the fresh preparation the parasite is in constant motion. The locomotion of the organism is independent of the flagella, but is dependent upon the undulating membrane which is always on the side where it can move freely.

Locomotion takes place at times by extrusion of pseudopodia and ameboid activity. Pseudopods are also extruded for the purposes of phagocytosis of leucocytes and bacteria. The organism may be detected in dried smears with special stains. They also may be cultured on Locke's solution containing five per cent of whole human blood. The life history of the parasite has not been worked out. Whether it multiplies by cell division or some type of sexual reproduction is not known, nor how it survives under unfavorable conditions, or whether it forms spores. Nor is the mode of infection in women been determined. It is thought that the organism

may be identical with that found in the intestinal tract and that the probable source of vaginal infection is by direct contamination from the rectal tract."—*Greenhill*.

Results in 39 Cases

I have treated thirty-nine private patients on whom a diagnosis of trichomonas vaginalis vaginitis was made. Included in this list are only those cases that represented the characteristic clinical picture and where a positive smear for trichomonades was obtained. The oldest patient in this series was fifty-two and the youngest seventeen years of age. Age is apparently an unimportant factor. Nine of the patients were single and seven of these were undoubtedly virgins. Twenty-nine per cent of the married patients in this series had never been pregnant. The history of duration symptoms varied from one week to five years. One-third of the patients in this series had received treatment for leucorrhea from other physicians before coming under my observation.

In the majority of these the history was that local treatments were given. Five patients had had a cauterization of the cervix. One patient had had the cervix cauterized nine times without relief from the irritating discharge. One patient in this series had had a pan-hysterectomy without relief from discharge, showing that the infection is not dependent upon a cervical or uterine lesion. Among thirty patients who have been followed up, 85 per cent were cured after one or more series of treatments. Recurrences occurred requiring subsequent treatment in 15 per cent. In this series there are three patients who have been followed up and who have gone two, two and a half, and three years respectively since their last treatment without a recurrence of vaginal discharge. These last mentioned cases have encouraged me to believe that where adequate treatment is carried out a permanent cure may be expected.

Treatment

Many different forms of treatment have been described for trichomonas vaginitis. The very multiplicity of remedies suggests their inadequacy. It is my opinion that this type of vaginitis may be cured with anyone of several forms of treatment. However, successful treatment must have in view the careful treatment of all parts of the vaginal mucosa and the process repeated at frequent intervals until the parasites have all been killed. Recolonization must be prevented by means of an agent brought into contact with the mucous membrane that will adhere to it for a long period of time. Both of these requirements are met by a method of treatment suggested by Greenhill which with some modification I have used with satisfactory results.

The vagina is exposed with a bi-valve speculum and all parts of the vaginal mucous membrane is thoroughly scrubbed with cotton pledgets saturated in tincture of green soap. The same treatment is applied to the vulva and anal region. The soap is washed out with sterile water and then the vagina is thorough-

ly dried. This is followed by painting the entire vagina with a ten per cent methylene blue solution. Next a tampon saturated with glycerine to which has been added bicarbonate of soda is placed in the vagina. These treatments are repeated daily for a week and then as often as the progress of the case warrants. In addition, the patients are instructed to take daily soda douches. The treatments should not be discontinued until hanging drop examinations are negative for the trichomonas and there is an entire absence of any abnormal vaginal discharge. When dismissed from further treatment, the patients should be instructed to return on the reappearance of any discharge. Relapses are frequent and their early recognition and treatment important.

I shall not attempt to outline any other methods of treatment which have been suggested for this disease. Some of these methods employ strong antiseptics such as bichloride of mercury (1-1500) as a topical application to the vaginal mucous membrane. I think it should be kept in mind that the vaginal mucous membrane is capable of absorption of drugs, and that there is danger from this source in the continued use of strong mercurials.

Summary

1. *Trichomonas vaginalis* is a frequent cause of an irritating purulent vaginal discharge.

2. The diagnosis can be made from the appearance of the inflamed vaginal walls and the foamy character of the discharge.

3. Finding of the motile protozoa in a fresh smear from the vaginal discharge will confirm the diagnosis.

4. The cervical canal, uterus and adnexa are not affected by the organism.

5. Husbands of patients affected do not show symptoms of disease.

6. Mode of infection is unknown. It may be from the intestinal tract.

7. A correct diagnosis in this disease will save patients the anxiety of an erroneous diagnosis of gonorrhea and unnecessary operations.

8. Prolonged and adequate treatment is necessary to affect a cure.

Discussion on Paper of Doctor Holmes

Dr. O. H. Weaver Macon, Ga.—Doctor Holmes has called our attention to a very important and frequently unrecognized malady, whose recognition is not difficult if carefully searched for. As the essayist

stated, the examination of a drop of the discharge from the vagina on a slide, diluted with normal saline, will bring out the characteristic organism, which is unmistakable. The question as to whether or not this organism is saprophytic or of pathogenic importance has been discussed, and I think today it is recognized generally that it is a pathogenic.

The diagnosis is quite important, not only for the purpose of treatment but also because it is so easily confused with gonorrhea. The correct diagnosis would remove the stigma which might be attached to an erroneous one.

The treatment of this condition is more or less difficult, whereas the organism is of very low vitality experimentally and can be destroyed by various and not particularly strong antiseptics. As Doctor Holmes stated, an important part of the treatment is thoroughness in reaching every portion of the vagina with the agent used. The treatment outlined in the paper is probably as good as any can be. The speculum, thoroughly scrubbed, and then treated with whatever application you decide to use. The treatment should be not only thorough but persistent, and some authorities suggest that it should extend through the menstrual period because these organisms thrive in the presence of blood. It should be continued for two to four months, with careful inspection from time to time after the symptoms have disappeared and there is no sign of the organism.

Dr. A. H. Hilsman, Albany, Ga.—I wish to thank Doctor Holmes for his contribution. This condition has given me great concern. The first case I recognized of this type came under observation some five years ago. The patient had terrific leukorrhea, and had suffered from menorrhagia for which she had radium for purposes of sterilization. She came under my observation after being treated by other men. I did not recognize the condition at that time, and felt that the radium might have had something to do with it. I used everything I had ever heard of in treating vaginitis with no result. The patient became worse and finally I took the matter up with some friends of mine who were doing a great deal of radium work in New York. Some of them said they had encountered conditions of this type following large doses of radium. After getting the patient's consent I did a panhysterectomy, without any effect on the discharge. This was not, then, due to any menstrual dysfunction because that had ceased entirely. I had made examinations but all stained specimens were negative for gonorrhea and practically everything else that would keep up the condition, as I saw it. Finally, I began using a 5 per cent mercurochrome solution with acetone and alcohol and in a period of four months' intensive treatment this patient finally recovered, and has remained well.

Since the finding of the trichomonas vaginalis on the warm slide came out I recognized that this was the cause of the condition. I have had several cases recently under observation, and have never found any-

thing that gave satisfactory results. I have one patient now who has been receiving treatment for six weeks, and I cannot see any improvement so far. I am glad Doctor Holmes brought the matter to our attention for I am sure the condition is more common than we realize, and very troublesome.

Dr. S. T. R. Revell, Louisville, Ga.—I wish to offer just one suggestion. The doctors have all suggested warming the slides for examining for the organism. I believe if the organisms were stained with giemsa's it might prove a valuable aid in their detection.

Savannah, Ga.—This organism does not require the particular examination necessary to demonstrate amoeba. These very motile parasites are easy to demonstrate in the feces, urine, or wherever they happen to be, so long as the specimen is liquid. In examining even great numbers of vaginal smears these protozoa are not seen with the ordinary stains.

As to etiology, both bacterial and protozoan organisms, ordinarily non-pathogenic, may assume pathogenic properties. In such infections the number of organisms present is important in making a bacteriological diagnosis. For example: a few organisms of Vincent are often found in throat and mouth smears, but when seen in great numbers, the diagnosis of the infection, Vincent's Angina, is made.

I recall a case of severe chronic dysentery due to trichomonas intestinalis which was confirmed as to etiology by Bass of New Orleans. Great numbers of parasites were always present in the feces. This patient, when last heard from, was somewhat improved following a course of salvarsan.

Dr. C. H. Richardson, Jr., Macon, Ga.—I think this is a very interesting and timely paper. It is the little things in life that are the most important, and if we can relieve these patients of their very distressing symptoms we find them very grateful.

I wish to call attention to one point, and that is that at the Jefferson Hospital in Philadelphia they have followed a series of these cases in prenatal clinics, and have found that the presence of the trichomonas vaginalis has contributed greatly to their morbidity. They feel that every pregnant woman should be carefully examined for trichomonades.

It has been my impression that this organism acted in an alkaline medium, and I have been accustomed to use mercurochrome and paint with lactic acid rather than to use alkaline solutions.

The Medical Association of Georgia will hold its eighty-third annual session in Savannah, May 17, 18, 19, 20. Announcement in reference to the program by the Committee on Scientific Work appears on page 29. Hotel DeSoto will be headquarters.

The American Medical Association will hold its eighty-third annual session in New Orleans, May 9th to 13th.

STAPHYLOCOCCUS SEPTICEMIA*

L. F. LANIER, M.D.

Sylvania

Staphylococcic septicemia is a generalized blood-borne infection caused by one of the staphylococci. The staphylococcus pyogenes aureus is the most frequent organism encountered, but the staphylococcus citreus and albus are also offenders. It is not limited to age, sex or race, nor to the season of the year. The staphylococcus infections usually occur alone, but may be mixed with other blood-borne infections.

Boils and carbuncles are the most frequent sources of infection. Abrasions, burns, ear, and sinus infections are many times the causative factor. Even infections of the body cavities may carry infection through the blood stream to other parts of the body and set up a bacteremia.

The incubation period is very irregular. Some cases develop in a few hours while others may take a week or two.

The infection usually comes on with a chill, fever, profuse sweating, and muscular pain. Pain and soreness of the joints occur, but not the severe pain and very high fever that is found in osteomyelitis of the long bones. Headaches, nausea and vomiting do not usually occur. The fever may be of the remittent type though oftentimes it is continuous.

The blood count shows moderate anemia and, in our malarial country here in the South, may often be very low, even below 60 or 50 per cent. So many of our people are walking around with chronic anemia who have had malaria off and on for several summers, that when an infection like a staphylococcus septicemia is grafted on it, you may expect the red cells to average 3,000,000 or less and the white cells 15,000 or more, with 70 to 90 per cent polymorphonuclear leukocytes.

The urine will usually show no change unless a nephritic abscess or a pyelitis develops. The stools frequently contain the organisms, if the individual has been drink-

*Read before the First District Medical Society, Millen, Ga., February 26, 1931.

ing large quantities of infected milk which has set up a gastro-intestinal disturbance.

Multiple petechia develop under the skin and there are frequently many superficial and deep abscesses over all parts of the body. Skeletal muscles and joints are frequently attacked with the abscesses, especially the tibia, the femur, the humerus, and even sometimes the occiput. If osteomyelitis sets up there is often much destruction of bone before severe pain begins and x-ray examination shows the trouble.

Many times at autopsy there is found purulent meningitis, brain abscesses, pulmonary oedema, and purulent pericarditis. No part of the anatomy is exempt from pathology.

In severe cases the prognosis is grave, for about 90 per cent succumb. In fact it seems much easier to prevent a streptococcus infection than a staphylococcus infection. The lymphatics will aid in a streptococcus infection, but the staphylococcus seems to be able to pass right through the lymphatic glands, and seek a favorable camping ground.

The case history I wish to present is that of a little boy five years old. He was reared upon lactic acid milk, with very good health throughout the infant period, not even having had measles, whooping cough, or scarlet fever. He had a small abrasion on his thumb and one or two on his feet. He had been playing with negro children on his father's plantation, who also exhibited small sores on their feet.

His mother brought him to me three weeks ago as he had been having slight fever, and pain over the second lobe of the left lung. I found pleurisy. I also discovered below the right scapula a large abscess which I opened two days later. The pain was intense; there seemed to be a mild pneumonia in the lower portion of the left lung. After a week or ten days of the usual medical treatment. I made blood count and found 14,600 cells. I did not take the hemoglobin but I am sure it was not more than 60 per cent. At the end of the second week the infection had spread to the quadriceps extensor of the left leg. The pain grew unbearable and an opening with a three-inch incision down to the bone was made. About three tablespoons of pus was evacuated and the opening packed with gauze.

After the operation the little boy was sent home. The fever continued for about a week and vaccine was given for fully two weeks. He made a complete recovery.

PERFORATION OF TYPHOID ULCER

Case Report

A. I. LEVIS, M.D.
Macon

This case is reported because perforation of the intestine in typhoid fever is rarely present without leucocytosis.

M. R. A., white man, aged 24, was admitted to the Macon Hospital July 18, 1931, complaining of pain around the umbilicus and bloody stools. The illness began twelve days before when he was compelled to quit work because of fever, sweating, general discomfort, and pain radiating around the umbilicus. At the onset he suffered chills and fever and a physician prescribed quinine which he took for several days without obtaining any relief. Anorexia, belching, and a sensation of fullness in the abdomen were also noted, and he had been suffering with a mild diarrhea since the onset of this illness, having had four bloody stools for the first time on the day of his admission to the hospital.

The physical examination revealed a pale, young white man, covered with a cold clammy perspiration. The temperature was 101.6, pulse 98, and respiration 22. He had dry cracked lips, foul odor of the breath, dry brown coated tongue, sordes on the teeth, and was somewhat cyanotic. A few rose-spots were seen on the chest and abdomen. The lungs were normal and the examination of the heart showed no abnormality except for slightly enfeebled heart sounds. The blood pressure was 120/78. There was a generalized tenderness over entire abdomen, slight distension and a mild true rigidity. The spleen was enlarged, being three finger breadths below the left costal margin. The extremities were cold and covered with clammy perspiration.

The urine was normal. The blood cell count was 3,610,000, and the total white cell count was 7,800, the polymorphonuclears being 79 and the lymphocytes 21. The Widal was positive.

On the day after admission the patient complained of excruciating abdominal pain, the temperature dropped from 104 to 100 degrees with a pulse of 130 and respiration of 40. There was marked rigidity and abdominal distension. Upon the suggestion of the two surgeons on the staff, morphine sulphate, grains $\frac{1}{4}$, was given immediately, and repeated four hours later. A perforated typhoid ulcer was suspected, especially after the patient obtained very little relief from the morphia, but the white cell count on the following

(Continued on Page 31)

THE JOURNAL

OF THE
MEDICAL ASSOCIATION OF GEORGIA
Devoted to Welfare of Medical Association of Georgia

139 Forrest Ave., N. E., Atlanta, Ga.

JANUARY, 1932

1932—GREETINGS

Another year is history. Its hardships which carried with them many heart aches may prove valuable to us. Our sailing has not always been easy, yet it has carried us through times of plenty and ease. This leads me to wonder if we are not spoiled. Can't we stand up under the present situation and in spite of adverse conditions push forward? Our forefathers did and laid the foundation of an era which we were privileged to enjoy. I may be presumptuous in this statement, nevertheless, I believe they were no stronger than we are and what they did we can do and more, so let's go!

It has been my pleasure to visit each of the twelve districts in Georgia. Every program would have done credit to the parent organization. This shows progress, the result of effort on the part of our membership.

The Woman's Auxiliary is well organized and rendering an efficient and valuable service. I often wonder if we back them up as we should. I am growing more and more in favor of them each year. Their presence at our meetings helps and we appreciate their efforts.

The Medical Association of Georgia has been active last year. While we lost in our legislative fights, yet this brought us closer together and today the voice of the medical fraternity and that of the dental profession will be heeded as never before. Their clean hard fighting did not hurt as it let "the powers that be" know that our influence is to be desired. We can watch for a year and see how the new plan—made without consulting their medical friends—works out. If satisfactory, then "all's well", but if not let's begin the fight early enough to win.

As to the compensation law: let's begin now. This allows a limit of only one hundred dollars to cover all medical and hospital care of the injured so protected. It is not fair for you and me and those of us running hospitals. Either make provisions sufficient or eliminate it altogether.

We took part in the dedication of the tablet at Augusta, in honor of Doctor Eve. This tablet was presented by the Polish-American Dental and Medical Association,

and the Polish Ambassador to the United States represented his country. Dignitaries of our country were also present. The history of Doctor Eve's activities for Poland is known to each of you and this act on the part of the sons of Poland is quite appreciated. Dr. Stewart R. Roberts represented the Medical Association of Georgia and the writer had the privilege of representing the Governor of Georgia. This event is definitely written in the medical history of Georgia and America.

Our membership, even in spite of conditions, is larger than a year ago. This is a healthful sign. Let's do our part to make our organization so attractive that every eligible physician in Georgia will be a member.

Finances of the Association are good. We have \$1,770 more on hand now than a year ago. Our present total is \$3,109. The Journal is still one of the best in the South, although its income has been greatly reduced. Too much credit cannot be given to the editor and assistant editors. Their labors should be rewarded. Economies have been practiced all the way through the Association's activities. We have as chairman of our Scientific Committee, Dr. J. E. Paullin. He has secured Dr. John Shea of Memphis, Tenn., who will read a paper on "Sinusitis in Children", and

The JOURNAL would like to record the scientific work of Georgia doctors. It earnestly requests, therefore, that each physician in the State who publishes a contribution in some other medical periodical to submit an abstract of the article for these columns.

Doctor Alvarez of Rochester, Minn., who will discuss "Nervous Indigestion". The plan is to have a symposium on Eye, Ear, Nose, and Throat diseases and one on "Nervous Indigestion". Both should be most interesting and instructive.

I am pleased with the progress of the Association and am delighted at the selection made for the active committees. Who could do more than Dr. Dan Y. Sage and Dr. J. E. Paullin. The President-Elect, Dr. Marvin Head, has honored us by being present at several meetings and our Vice-Presidents, Drs. Pruitt and Tolleson, have attended quite a few and 'til we meet in Savannah will meet you at the district meetings.

The Councilors have been active and all respond promptly when called on.

Our Medical History needs considerable work yet to make of it what you want. Be patient with this as it is better to wait awhile than be disappointed. We are at work on this.

The date for our meeting in Savannah has been changed so that it will not conflict with that of the American Medical Association. Our date is May 17, 18, 19, 20. To me there is a charm about Savannah. Perhaps it is because my mother lived there, and perhaps it is because the Savannah doctors know how and delight in making you feel at home.

Fellows, let's carry on and let's strengthen our units as our activities are being encroached on more and more each year.

We must present a solid front or be crushed by the tide.

Remember, first, "Sell your profession by service, not by legislation," but remember that in time of peace we must prepare for war.

I thank you for your helpful assistance and bid you God-speed.

Fraternally,
ARTHUR G. FORT, M.D.
President.

TO THE MEMBERS OF THE MEDICAL ASSOCIATION OF GEORGIA

Your Committee on Scientific Work is most anxious to have a representative program at the May meeting of the State Medical Association in Savannah. To this end it is respectfully requested that all members who desire to present papers at this meeting send the titles at once to the chairman of the committee.

The committee has decided that for the coming meeting there will be only thirty-four papers. Because of the limitation in the number of presentations it might not be possible to give each applicant a place on the scientific program; however, it will be the endeavor of your committee to select for presentation such papers as will be of the greatest interest to the members of our organization.

The final meeting of the Committee on Scientific Work will occur in February. At this time we hope to have the program in shape. In order for this to be accomplished it is necessary to have the immediate cooperation of the members in making this meeting a big success. Won't you help us by sending the title of your paper at once?

Yours very truly,
J. C. Patterson, M.D.
A. H. Bunce, M.D.
J. E. Paullin, M.D.
Chairman,
1010 Medical Arts Bldg.
Atlanta, Ga.
M. M. Head, M.D.
President-Elect
Arthur G. Fort, M.D.
President

RADIO WAVES

Fifth Edition

"Control medical activities through your medical societies and Woman's Auxiliary or lay-organizations will control you."—*Fort*

Let's all work for a better Medical Association of Georgia; leaving out politics."—*Head.*

"Render service to the patient; but avoid unfavorable comment on the work of your brother."—*Pruitt.*

"Persistent application of one's talents, no matter how limited, will accomplish more in the end than occasional strokes of genius."—*Tolleson.*

"A quiet manner, a genial smile, a merry twinkle, a gentle touch, a sympathetic ear; a great loving heart: the true physician."—*Clark.*

"Improvement in the practice of scientific medicine will coincide with an increasing percentage of post-mortems."—*Bunce.*

"Common sense is the knack of seeing things as they are; and doing them as they should be done."—*Myers.*

"Let age, not envy, draw wrinkles on thy cheeks."—*Redfearn.*

"Treat the other doctor better than he does you and there will be no damage suits."—*Patterson.*

"Good opportunities seldom come and are quickly gone."—*Roberts.*

"Don't kill yourself saving others—a golf game a week will lighten the load."—*Selman.*

"To maintain community respect in us as doctors, let us not only teach, but practice the highest ideals of our profession."—*McCord.*

"Let yesterday's experiences make tomorrow's easier."—*Fullilove.*

"Medical genius holds the key that unlocks the door of human progress."—*Ayers.*

"'Tis said, 'Life ain't so much in holdin' a good hand, but in playin' a poor hand well.'"—*Lewis.*

"Why spend one's life in acquiring the means of life, and at the same time neglect to live?"—*Coleman.*

"Love of humanity begets love of the profession."—*Wall.*

"Let us institute a State-wide drive against heart disease, the present 'Captain of the men of death'."—*Bancker.*

"You have but one reputation: guard it in every way."—*Blackford.*

"Prescribe Council accepted drugs."—*Dougherty.*

"Proper individualization of cases requires sympathetic understanding as well as scientific skill."—*Massee.*

NEW MEMBERS FOR 1932

Fussell, J. K., *Rhine*
Pickett, C. E., *Richland*
Schenck, H. C. *Alto*
Youmans, C. R., *Lumber City*

SOUTHEASTERN SURGICAL CONGRESS

Birmingham, Ala., March 7-8, 1932

Preliminary Program

The Southeastern Surgical Congress announces the third annual assembly of the Congress, to be held in Birmingham, Ala., at the Tutwiler Hotel, March 7-8, 1932. The following men will appear on the program (and other essayists will be announced later):

Dr. W. W. Babcock, Philadelphia, Pa.—“Treatment of Carcinoma of the Lower Colon, With Methods for the Elimination of Colostomy.”

Dr. V. P. Blair, St. Louis, Mo.—“Surgery of the Ocular Appendages and Related Structures.”

Dr. A. G. Brenizer, Charlotte, N. C.—“Observation Drawn From 2,500 Thyroidectomized Cases.”

Dr. Willis Campbell, Memphis, Tenn.—(Subject to be announced later.)

Dr. George W. Crile, Cleveland, Ohio.—(Subject to be announced later.)

Dr. T. M. Davis, Greenville, S. C.—“Motion Picture Demonstration of Transurethral Correction of Prostate Gland Obstruction, With Report of Results in Over Three Hundred Cases.”

Dr. John F. Erdman, New York, N. Y.—“Diverticulitis and Diverticulosis.”

Dr. Frank Hagaman, Jackson, Miss.—“A Practical Treatment for Fractures of the Clavicle.”

Dr. Ralph H. Greene, Jacksonville, Fla.—“Spasms of the Diaphragm Relieved by Bilateral Phrenicotomy” (Motion Pictures).

Dr. Carl A. Hedblom, Chicago, Ill.—“Diaphragmatic Hernia” (With Lantern Slides).

Dr. Chevalier Jackson, Philadelphia, Pa.—“Bronchoscopy and Esophagoscopy”—“Cancer of the Larynx.”

Dr. Frank H. Lahey, Boston, Mass.—“Combined Medical and Surgical Management of Gastric and Duodenal Ulcer.”

Dr. Dean Lewis, Baltimore, Md.—(Subject to be announced later.)

Dr. C. Jeff Miller, New Orleans, La.—(Subject to be announced later.)

Dr. Fred W. Rankin, Rochester, Minn.—“Diagnosis and Treatment of Carcinoma of Rectum and Rectosigmoid.”

Dr. R. L. Sanders, Memphis, Tenn.—“The Present Status of Gallbladder Surgery.”

Dr. E. Laurence Scott, Birmingham, Ala.—(Subject to be announced later.)

Dr. E. G. Ballenger, Atlanta, Ga.—“The Diagnosis of Surgical Affections of the Kidney and Ureter.”

Dr. G. T. Tyler, Jr., Greenville, S. C.—(Subject to be announced later.)

COUNTIES REPORTING FOR 1932

Bartow County Medical Society

The Bartow County Medical Society announces the following officers for 1932:

President—W. E. Wofford, Cartersville.

Vice-President—T. Lowry, Cartersville.

Secretary-Treasurer—A. C. Shamblin, Cartersville.

Delegate—T. Lowry, Cartersville.

Alternate Delegate—W. C. Griffin, Cartersville.

Hall County Medical Society

The Hall County Medical Society announces the following officers for 1932:

President—R. L. Rogers, Gainesville.

Vice-President—L. G. Neal, Cleveland.

Secretary-Treasurer—W. R. Garner, Gainesville.

Delegate—J. K. Burns, Gainesville.

Alternate Delegate—C. J. Wellborn, Gainesville.

Censors—C. G. Butler, J. L. Meeks, and C. D. Welch.

Walker County Medical Society

The Walker County Medical Society announces the following officers for 1932:

President—S. B. Kitchen, LaFayette.

Vice-President—B. C. Hale, Rossville.

Secretary-Treasurer—Fred H. Simonton, LaFayette.

Delegate—D. W. Hammond, LaFayette.

Alternate Delegate—S. B. Kitchen, LaFayette.

Thomas County Medical Society

The Thomas County Medical Society announces the following officers for 1932:

President—Harry Ainsworth, Thomasville.

Vice-President—J. I. Palmer, Thomasville.

Secretary-Treasurer—H. M. Moore, Thomasville.

Georgia Medical Society

(Chatham County)

The Georgia Medical Society announces the following officers for 1932:

President—Wm. A. Cole, Savannah.

President-Elect—Robert Drane, Savannah.

Vice-President—John L. Elliott, Savannah.

Secretary-Treasurer—Otto M. Schwalb, Savannah.

Delegate—R. V. Martin, Savannah.

Delegate—G. H. Lang, Savannah.

Members of the Board of Trustees re-elected were:

Wm. H. Myers, G. H. Faggart, D. B. Edwards, and C. G. Redmond, all of Savannah. Julian K. Quattlebaum, Savannah, was elected as a member of the Board of Trustees to fill a vacancy.

Jackson County Medical Society

The Jackson County Medical Society announces the following officers for 1932:

President—F. M. Hubbard, Commerce.

Vice-President—S. A. Boland, Jefferson.

Secretary-Treasurer—P. T. Scoggins, Commerce.

Delegate—C. B. Lord, Jefferson.

Dougherty County Medical Society

The Dougherty County Medical Society announces the following officers for 1932:

President—A. S. Bacon, Albany.

Vice-President—W. S. Cook, Albany.

Secretary-Treasurer—I. M. Lucas, Albany.

Delegate—J. P. Tye, Albany.

Alternate Delegate—W. S. Cook, Albany.

Lowndes County Medical Society

The Lowndes County Medical Society announces the following officers for 1932:

President—E. J. Smith, Hahira.

Vice-President—F. H. Thomas, Valdosta.

Secretary-Treasurer—G. T. Crozier, Valdosta.

Delegate—E. P. Quillian, Clyattville.

Alternate Delegate—B. G. Owens, Valdosta.

Wilcox County Medical Society

The Wilcox County Medical Society announces the following officers for 1932:

President—S. R. Mitchell, Pineview.

Secretary-Treasurer—J. T. Gammage, Pineview.

Delegate—L. A. Williams, Abbeville.

Alternate Delegate—J. T. Gammage, Pineville.

Washington County Medical Society

The Washington County Medical Society announces the following officers for 1932:

President—B. L. Helton, Sandersville.

Vice-President—L. C. Mitchell, Sandersville.

Secretary-Treasurer—W. M. Cason, Sandersville.

Delegate—E. S. Peacock, Harrison.

Alternate Delegate—J. R. Burdett, Tennille.

Whitfield County Medical Society

The Whitfield County Medical Society announces the following officers for 1932:

President—G. L. Broadrick, Dalton.

Secretary-Treasurer—B. L. Kennedy, Dalton.

Delegate—Trammell Starr, Dalton.

Spalding County Medical Society

The Spalding County Medical Society announces the following officers for 1932:

President—W. H. Steele, Griffin.

Vice-President—W. C. Humphries, Griffin.

Secretary-Treasurer—H. J. Copeland, Griffin.

Delegate—W. C. Miles, Griffin.

Alternate Delegate—H. J. Copeland, Griffin.

Troup County Medical Society

The Troup County Medical Society announces the following officers for 1932:

President—W. P. Phillips, LaGrange.

Secretary-Treasurer—J. E. Lane, LaGrange.

PERFORATION OF TYPHOID ULCER

(Continued From Page 27)

day was 6,100 and the rigidity and abdominal distension had somewhat subsided, so an intestinal hemorrhage was suspected and not a perforation. Morphine sulphate, grains $\frac{1}{4}$, was again given every four hours for three doses. The patient was still complaining of pain and the temperature dropped still further down to 96.4 degrees. The pulse was 130 and the respirations 40.

On the third day in the hospital the white blood count was 3,400, the temperature being 101.6, and the pulse 150. He was perspiring profusely and hic-coughing frequently. Due to the low white cell count there was no agreement for a diagnosis of a perforated typhoid, intestinal ulcer. The following day the white

blood count was 3,100, the temperature 101, the pulse 180, and respirations 60. The patient passed three copious stools that morning having had no bowel movement since his admission to the hospital. The abdominal distension and rigidity which had somewhat subsided two days before became much worse than it had been at first, and the patient died on the fourth day of hospitalization.

Necropsy was done two hours postmortem and was restricted to an examination of the abdomen and partial examination of the chest. The subcutaneous tissue over the sternum was edematous. The lower lobe of the right lung showed a few scattered, firm, slightly elevated dark red areas, about 1 cm. in diameter. The coils of the terminal ileum were adhered to each other and to the peritoneum anteriorly. The peritoneal surfaces of these coils and of the anterior portion of the peritoneum were markedly hyperemic and fibrin-covered. About 500 cc. of turbid fluid of greenish, amber color with a slightly fecal odor was removed from the peritoneal cavity. The mesenteric lymph nodes were moderately enlarged, pale, and relatively soft. The spleen was moderately firm, smooth and enlarged to about three times the normal size. There was a small perforation through the base of an ulcer about 30 cm. proximal to the cecum. The ulcer was rounded, about 1 cm. in diameter, and had elevated somewhat soft margins. There were a few other shallow ulcers in the vicinity, but nearer the cecum, and there were three in the colon. On section of the mesenteric lymph nodes were succulent and grayish. The anatomical diagnosis was perforated ulcer of ileum, ulcerative enteritis and typhlitis, general peritonitis and hyperplasia of the spleen and mesenteric nodes.

Summary

A white man, age 24, was admitted to the hospital on July 18, 1931, complaining of pain radiating around the umbilicus and bloody stools. In view of the history, physical examination, and positive Widal, a diagnosis of typhoid fever was made. On July 10th the patient complained of excruciating abdominal pain, morphia giving very little relief. A perforated typhoid ulcer was then suspected, patient having had a drop in temperature, moderate rigidity, distension and abdominal tenderness. However, since the total white cell count was 7,800 on the 19th, 6,100 on the 20th, 3,400 on the 21st, and 3,100 on the 22nd of July, the opinion of others was that this was a case of intestinal hemorrhage, and not a perforated typhoid ulcer, especially after the rigidity had greatly subsided. The patient died on July 22nd, and necropsy two hours post-mortem revealed a perforated ulcer about 30 cm. proximal to the cecum.

GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. ABERCROMBIE, M.D., *Director*

MORTALITY TREND IN GEORGIA

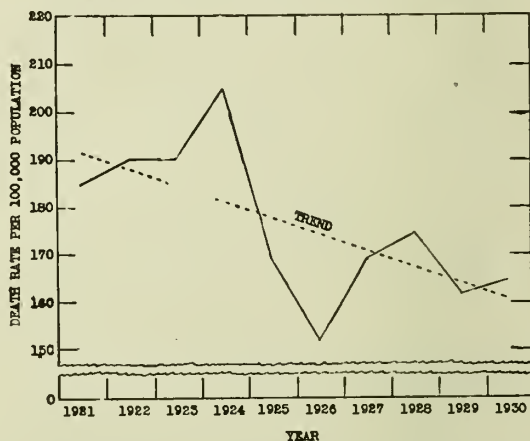
The health conditions or health record of a state are judged by comparing the death rates from the various causes of death with corresponding rates in other states or by studying the trend of rates within the State. In comparing crude death rates of one state with another erroneous conclusions may be reached unless careful consideration is given to all factors that are known to have an influence over death rates; *i.e.*, population composition, completeness of registration, climate, etc. Since, at best, the weight of these various factors can only be approximately determined, the mortality trend is selected as the best means to present the health record in Georgia.

In the following graphs the deaths in Georgia from 1921 to 1930 are divided into three groups according to the International Classification of Causes of Death. First, epidemic and infectious diseases (exclusive of influenza); second, all other diseases, and, third, external causes.

The first group, epidemic and infectious diseases, is of especial concern to public health agencies because it includes those diseases that experience proves are responsive to control and preventive measures. These diseases cause many unnecessary deaths, untold mental and physical anguish, and stupendous economic loss. In fact, two diseases in this group, typhoid and malaria, have been grave obstacles to the agricultural and industrial development of the State. Since 1921 there has been an estimated annual average of 5,930 cases of typhoid fever, and 136,500 cases of malaria with an annual average of 1,048 deaths. A moderate estimate of the economic loss runs into figures of such proportions that it is hard to believe.

In the graphs showing the three groups of causes of death it is significant that only epidemic and infectious diseases show a downward trend in their death rates. There is an annual average decrease of 3.1 in the death rates in this group. Further encouragement to public health workers and impetuous to renewed effort is the fact that each of the four most important causes in this group—typhoid fever, malaria, diphtheria, and tuberculosis, show downward trends in their death rates. Although every accepted measure is being used to further reduce the number of deaths from epidemic and infectious diseases, full success can not be attained without the cooperation of all the physicians of the State.

DEATH RATE PER 100,000 POPULATION FROM EPIDEMIC AND INFECTIOUS DISEASES (EXCLUSIVE OF INFLUENZA), IN GEORGIA: 1921 to 1930



To successfully control epidemic and infectious diseases it is essential that every case be reported and in the event of death a "Medical Certificate of Death" should be furnished by the attending physician.

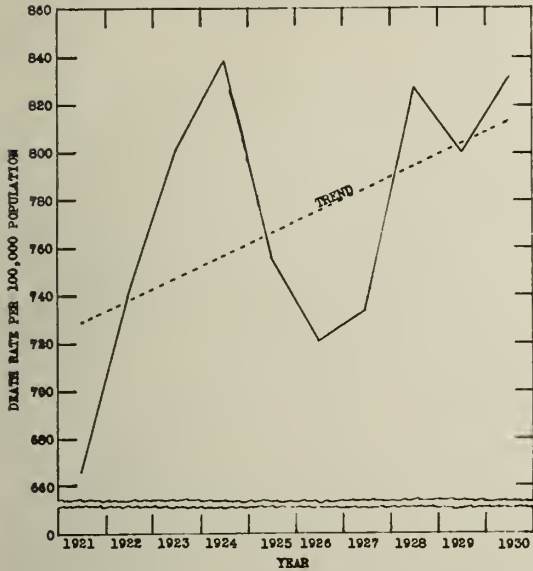
The graph showing the death rates from all other diseases, except epidemic and infectious, shows a decided upward trend in the rates. Since 1921 there has been an annual average increase of 8.3 in the rates. This unfavorable condition is caused, principally, by the alarming and unchecked increase in the deaths from heart diseases, together with the unabated increase in deaths from cancer, cerebral hemorrhage and softening of the brain, and nephritis.

In Georgia, as in the other States, the proportion of persons in the higher age groups is increasing, with consequent increase in the number of deaths from certain of the degenerative diseases peculiar to advancing years. Medical science will, no doubt, give these diseases more attention and study that these old people may be relieved of physical suffering and their lives prolonged.

In the last graph are included deaths from homicides, suicides, and accidental violence. The death rates from this group of causes of death show an upward trend of an annual average increase of 2.0 in the rates. Although both homicides and suicides show upward trends, deaths from automobile accidents are primarily responsible for the sharp upward trend.

The death rates from certain epidemic and infectious diseases may be higher in Georgia than those recorded in some states, yet Georgia's downward trend for the past ten years is equalled by very few.

DEATH RATE PER 100,000 POPULATION FROM ALL CAUSES (EXCLUSIVE OF EPIDEMIC AND INFECTIOUS DISEASES, EXTERNAL CAUSES AND UNKNOWN AND ILL-DEFINED CAUSES), IN GEORGIA: 1921 to 1930



TETANUS

"Immediately following Christmas there is always an increased demand for tetanus antitoxin, due no doubt to the bad habit of fireworks and firearms being firmly fixed with some people," says Georgia's Health.

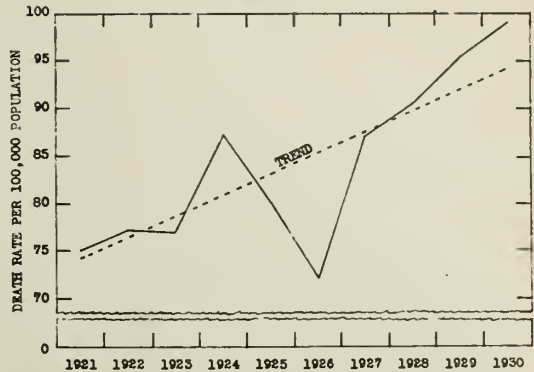
"For some reason wounds from fireworks seem to be more dangerous than other wounds, though all puncture wounds are always dangerous.

"Tetanus is a serious disease: it should always be suspected and expected to follow all types of injuries that do not have free drainage and in all wounds if they have the opportunity of infection from soil that might be infected with the tetanus microbe. Such wounds should be immediately seen by the physician; he will cleanse them and quite likely will administer the immunizing dose of tetanus antitoxin. Usually this is a small dose of 1,500 to 3,000 units, depending on the character of the wound and the instrument that caused it. Blank cartridge wounds, for instance, will require a larger dose than a minor cut. The length of time elapsing between the injury and the administration of the remedy would quite likely have its effect on the size of the prophylactic dose; it should be administered as quickly as possible by a reputable physician."

PELLAGRA STATISTICS

Notwithstanding the stringency, the depression or whatever it is, we are making good headway in the control of our deficiency

DEATH RATE PER 100,000 POPULATION FROM EXTERNAL CAUSES IN GEORGIA: 1921 to 1930



disease, pellagra. In 1930, during the first nine months of the year, we had 542 deaths; the same period in 1931, 462 deaths, or a saving of 80 lives.

It is interesting to see what is happening around us: Louisiana in 1929 had a rate of 11.2; in 1930, 13.2. In North Carolina the rate in 1929 was 12.3, in 1930 32.0. South Carolina in 1929 had a rate of 18.1, in 1930, 46.6. In Tennessee in 1929 the rate was 12.8, in 1930, 15.5. Virginia in 1929 had a rate of 5.8, in 1930, 8.9. Alabama and Florida rates for the above mentioned years are not available at this time. Georgia's rate in 1929 was 30.0. This was reduced in 1930 to 24.5.

We are not in position to give the reason for Georgia's fine showing; it is due to many various causes. The educational material distributed, the cooperation of our physicians, the splendid work of our State College of Agriculture and all other educational institutions in the state, the loyal support of the health officers and public health nurses of the entire state.

LABORATORY REPORT OF THE STATE BOARD OF HEALTH FOR THE MONTH OF OCTOBER

Examinations for tuberculosis.....	243
Examinations for diphtheria.....	855
Examinations for typhoid and other fevers.....	1,020
Examinations for gonococcus.....	173
Examinations for malaria.....	1,097
Examinations for intestinal parasites.....	3,557
Examinations for syphilis.....	4,024
Examinations for rabies.....	56
Miscellaneous examinations.....	61
Examinations of water samples.....	795

Total..... 11,881

Medical Association of Georgia meets in Savannah, May 17th-20th.

GEORGIA STATE NURSES ASSOCIATION

Officers

President—Miss Alice F. Stewart, R. N., Augusta.
 First Vice-President—Miss Dora A. Kershner, R. N., Macon.
 Second Vice-President—Miss Lillian Cumbee, R. N., Emory University.
 Secretary—Miss Florence Pund, R. N., Augusta.
 Treasurer—Miss Jane Van De Vrede, R. N., Atlanta.
 Miss Jane Van De Vrede, R. N.
 Executive Secretary

District Presidents

First—Mrs. Dorothy Treakle, R. N., Savannah.
 Second—Mrs. B. Y. Vann, R. N., Thomasville.
 Fourth—Miss Lucia Massee, R. N., Cuthbert.
 Fifth—Mrs. Sue B. Paille, R. N., Atlanta.
 Sixth—Mrs. Sarah P. English, R. N., Sandersville.
 Seventh—Miss Shirley Hamrick, R. N., Cedartown.
 Eighth—Miss Lynda Bray, R. N., Athens.
 Ninth—Miss Ruby Falls, R. N., Gainesville.
 Tenth—Mrs. Olive Barbin, R. N., Augusta.

Headquarters

131 Forrest Avenue, N. E., Atlanta.

MISS THOMSON'S NEW YEAR MESSAGE

We, all of us, have a pride in the achievements of those who have developed our Association so efficiently and effectively up to the present time, and it would seem as if we were justified in feeling a proper pride in the achievements of our organization in the year 1931. The way in which all of you rallied to the membership campaign still thrills us, doesn't it? The way each state has endeavored to find a solution for the unemployment problem which has existed all over the country for our nurses has been splendid, for we have accepted this problem as ours, and while no real solution has been found which fits all states and unemployment situations, something has been done to help some of the members of our group who have suffered so much in this trying period.

We are, therefore, justified in our hope for our professional organization for 1932. We shall meet in San Antonio in April, and there have an opportunity to discuss our problems from the angle of each of our states and share not only the problems, but our experiences in handling them. There is so much still to be done that it must challenge our clearest thinking and best endeavors, and I'll conclude as I began with a hope that the New Year may be a happy one because each of us, and that means over one hundred and eight thousand individuals, shall be working toward such an end.

ELNORA E. THOMSON, R.N.,
President, American Nurses' Association.

MISS GEISTER'S WISH

Years ago I heard a New Year's sermon that always comes to mind when some once-cherished dream or wish doesn't come true. "Think of the things you wanted a year

ago," said the speaker; "how many of them do you still want?" The transience of some of our desires that temporarily seemed imperative is sometimes comforting to think about. But conversely we can be sure that if our dreams and hopes and wishes endure the test of time, there must be something very sound about them.

For a goodly number of years you and I have had a wish. We've longed for the day when every qualified nurse could be reasonably sure of regular employment, an adequate income, decent hours of work, opportunity for professional advancement, and opportunity of family and community life that insure personal balance and growth. This wish of ours refers particularly to our most maladjusted field, private duty nursing.

I believe honestly that each year is bringing us nearer to the fulfillment of our wish. But this year, when our normal unemployment is aggravated by the acute world depression, our wish must carry with it something more purposeful, more practical than good feeling. Our wish this year must have in it a pledge of ourselves. It must mean "I'm wishing you a Happy New Year to a degree I never wished it before. I intend to do everything I can to advance the standards of nursing and to achieve security for nurses. I mean to help to make our wish come true".

Each one of us, as we wish our sister nurses "A Happy New Year", cannot but think of the challenge in the lines:

"He who gives himself with his gift
 feeds three,

Himself, his hungering neighbor,
 and Me."

JANET M. GEISTER, R.N.,
Director at Headquarters.
 Happy New Year!

Organization has never been more essential than today, while unemployment is so great.

MISS STEWART GREET'S GEORGIA NURSES

Were I a Houdini, or any one of the miracle workers who have lived from time to time, I would say "Vanish, all ye troubles: give us this year 1932 to get our breath and rest solidly upon our feet". But unfortunately I am nothing but ordinary clay and not authorized to use a magic wand.

The Georgia State Nurses' Association has just celebrated its Silver Jubilee in Savannah. Something more than mere words must have created within all the nurses present a stoic spirit that shined out like bright light, perpetually visible during the Jubilee, and the best wish that I can make for 1932 is for this light to continue to shine. In the end it will certainly light the way for us out of our difficulties. May this light grow brighter and brighter as 1932 increases in age.

Quoting John McCrae's immortal lines:

Take up our quarrel with the foe
To you from falling hands we throw
The torch
Be yours to hold it high.
If ye break faith with us who die
We shall not sleep
Though poppies grow
In Flanders' fields.

The obligation is upon us to hold it high, who can doubt that those who paved the way for us had in their hearts such thoughts!

In so doing we are assured that it will light our way through difficulties, and into a wider usefulness. Ever uppermost in our minds and hearts must be the will to strive for ideals, and to keep our courage through times of stress, we must work together in common purpose. May your courage increase and your light grow brighter in 1932 all ye nurses of the Georgia State Nurses' Association!

ALICE F. STEWART, R.N., *President*
Georgia State Nurses' Association.

EXCERPTS FROM THE JANUARY BULLETIN OF THE AMERICAN NURSES' ASSOCIATION

Membership Cards: "Twenty-eight states have decided to use the new national membership card. This means that at least 58,372 individual members will hold that form of identification in 1932. A few states must defer use of the new form until 1933, having already ordered their 1932 stock of cards. Other states will doubtless join in the move toward uniformity after official action is taken at impending board meetings." (Georgia has adopted the membership card of the A. N. A.)

Preparedness in Private Duty: "It is almost upon the shoulders of the private duty nurse to educate the public and at the same time to maintain the highest standards of the profession, since it is the individual who is actually at the bedside ministering to the sick and dying, whose actions are so closely watched and so severely criticised. The others all work in groups—for groups, with groups—but the private duty nurse stands alone, alone with her patient and with death. She it is who battles singlehanded with diseases, and when you find one at a bedside who is unprepared, she is like a soldier on the firing line without a gun. What have we gained in becoming qualified if we go on duty unprepared? Private duty nurses must awaken to the fact that they should be both *qualified and prepared.*"—Geneva Peters, speaking at the Southern Division Conference.

Alumnae Shops: "Alumnae of the Presbyterian Hospital School of Nursing have hit on a practical way of raising money for the school endowment fund. In the private pavilion are The Alumnae Shops, well stocked with books, stationery, toilet articles, fountain pens, playing cards, cigarettes, candy, crackers, stockings, handkerchiefs, babies' gifts, and toys. Radios and books are for rent. A neat poster in the room of each patient serves to advertise the shops. Many of the articles for sale are sent in by alumnae. Why not Alumnae Shops for unemployment funds, where needed?"

The prevalence of typhoid fever has been decreasing in the United States since comparable yearly statistics of cases and deaths have been available. During the calendar year 1930 a slight reaction was shown by the reports. The increase was reported during the last six months of 1930 and in some States at least it may have been influenced by the drought conditions which resulted in pollution of water supplies or necessitate the taking of drinking water from new or unknown sources. The typhoid fever rates as computed from reports to the Public Health Service were as follows: 1930, 22 cases per 100,000 population; 1929, 19 cases, and in 1928, 22.7 cases.—*United States Public Health Service, December 28, 1931.*

G. H. HANSMANN and J. W. BUDD, Iowa City (*Journal A. M. A.*, Jan. 2, 1932), report seventeen retroperitoneal tumors which were not attached to adult urogenital organs. All the tumors were similar to tumors which arise in the adult urogenital organs. Retroperitoneal tumors collected from the literature, integrated with the material described by the authors showed that most all tumors which occur in adult urogenital organs may occur free along the course of development of the urogenital apparatus. The concept that they arise from remnants of the urogenital apparatus is the most logical explanation of their histogenesis.

WOMAN'S AUXILIARY

MEDICAL ASSOCIATION OF GEORGIA

OFFICERS

President Mrs. Ralston Lattimore, Savannah
 President-Elect.....Mrs. S. T. R. Revell, Louisville
 1st Vice-President Mrs. J. Bonar White, Atlanta
 2nd Vice-President.....Mrs. C. B. Almand, Winder
 3rd Vice-Pres., Mrs. D. N. Thompson, Elberton

Recording Secy.....Mrs. J. E. Penland, Waycross
 Cor. Secretary, Mrs. Wm. R. Dancy, Savannah
 Treasurer.....Mrs. Ben Bashinski, Macon
 Parliamentarian Mrs. Allen H. Bunce, Atlanta
 Editor.....Mrs. G. H. Johnson, Savannah

SOME OF THE PURPOSES AND WORKINGS OF THE AUXILIARY

The chief purpose of the Auxiliary is to be of service to the doctors and be ready to respond to any call made by the Medical profession, as well as to promote acquaintanceship, harmony, and unity among the families of the doctors.

Dr. Henry W. Salus has listed under ten heads what he considers "the worth of such an organization". All of these are splendid, but I will quote only three of them: first, "the Auxiliary has added polish and refinement to these gatherings"; second, "it has permitted the woman to become an integral part of the life of the man socially, professionally, and commercially"; third, "it has stimulated the Medical Society not to be outdone in thought and activity".

The officers of the Auxiliary are shown at the top of this page.

The President is expected to perform the usual duties of the office as custom and parliamentary usage may require. She shall observe the wishes of the majority, respect the minority, and serve all members."

The President-Elect is Chairman of Organization. She shall be glad to help with any of your problems and all reports of the organization of new Auxiliary should be made to her.

The First Vice-President is Chairman of Health Education. She has a committee of ten, who are appointed by the President. The object of this committee is "the teaching of health and health laws—not to make new laws—but to see that those already made are understood and carried out". Every County Auxiliary will hear from them, outlining definite workable plans.

The Second Vice-President is Chairman of Hygeia, the official magazine of the Woman's Auxiliary. It is published by the American Medical Association. Every County Auxiliary should have a Hygeia Chairman, who receives her instruction from the State Chairman.

The Third Vice-President is Scrap Book

Chairman. All items of Auxiliary work that help to make its history should be sent to her.

Mrs. Hugo Johnson is editor of the department in the Journal of the Medical Association of Georgia that is devoted to the Woman's Auxiliary. Send her all items of happenings in your County Auxiliaries, reports of District Meetings, etc.

The state dues are 75 cents per capita and should be sent by the Treasurer of County Auxiliary to State Treasurer, who in turn, sends 25 cents per capita of this for the dues of the Woman's Auxiliary to the American Medical Association. All dues for the year must be sent in not later than January 1st.

The District Manager, one for each district, are elected in their respective districts by its members. They are the organizers for the districts. They shall make an annual report of their work and of the condition of each County Auxiliary in their districts at the annual meeting of the delegates.

There are three standing committees, one of which, Public Policy and Legislation, does not function unless called upon to do so by the Medical Association. There are eight ladies on this committee, appointed by the President.

Mrs. Julian Quattlebaum of Savannah is Chairman.

The next committee has as its Chairman Mrs. John A. Selden of Macon. There are five other members, who are also appointed by the President. The following resolution adopted in regard to it will best explain its function:

"Resolved, that the Woman's Auxiliary to the Medical Association of Georgia establish a Health Film Library. Money for this purpose may be contributed by County Auxiliaries or by interested individuals. The fund shall be kept separate from all other State moneys and used for the rental, carrying charges, or other expenses necessary. Be it further resolved, that each County Auxiliary assume the responsibility of planning during the year a Health Program in each county, using one or more Health films."

The last committee and one of the most

important from a philanthropic standpoint, is the Student Educational Loan Fund Committee. This fund is used for the medical education of Georgia boys or girls of high moral character, the preference to be shown to members of doctors' families. These students must go to a medical school in Georgia. It is the purpose of this fund to supplement, rather than supply, the whole amount needed by the student. This money shall be obtained from the organized efforts of individual Auxiliaries. The goal set for each Auxiliary to be the minimum sum of one dollar per member, more if possible. Donations from people outside of the Auxiliary will be gladly received. This fund shall be administered by a standing committee composed of a chairman elected by the general body for a period of three years, a representative from each district and a treasurer, appointed by the President. The President and President-Elect to be ex-officio members. Mrs. William Shearouse of Savannah is Chairman of this committee. We are helping four boys at this time. I failed to state that this money is to be loaned at an annual rate of 4 per cent interest.

I have endeavored to give as briefly as I could an outline of the activities of the Woman's Auxiliary to the Medical Association of Georgia, in the hope that you might be interested in some or all of this work. You understand, of course, that in organizing an Auxiliary, it is not necessary to undertake all branches of the work unless you so desire, for the Auxiliary's sphere is like that of a woman's:

"They talk about a woman's sphere,
As though it had a limit;
There's not a place in earth or heaven
There's not a task to mankind given,
There's not a blessing or a woe,
There's not a whisper yes or no,
There's not a life or death or birth,
That has a feather's weight of worth,
Without a woman in it."

Mrs. S. T. R. Revell,
Chairman of Organization.

Mrs. J. Bonar White, Atlanta, was extended the privilege of introducing all of the honor guests who attended the meetings of the Woman's Auxiliary to the Southern Medical Association at New Orleans, November 18-20.

ELEVENTH DISTRICT

The fall meeting of the Eleventh District Auxiliary was held in the afternoon of Oc-

tober 13, 1931, in the Hotel Musgrove, Homerville.

The meeting was presided over by the President, Mrs. J. E. Penland.

The meeting was called to order and the invocation was given by Rev. C. L. Neese.

Address of welcome was made by Mrs. R. G. Dickerson of Homerville; Response by Mrs. A. S. M. Coleman of Douglas.

Address on Health was made by Mrs. J. L. Walker.

Mrs. C. L. Neese gave a vocal solo.

Dr. A. G. Fort, of Atlanta, President of the Medical Association of Georgia, made an address. He was introduced by Dr. B. H. Minchew.

The business session was called to order and after being opened with the Lord's Prayer, the minutes of the last meeting were read and approved.

Roll was called and there were sixteen members present.

The Treasurer's report was called for, after which dues were collected from six (6) members who belong only to the District Auxiliary.

Communications were read from the State President, Mrs. Ralston Lattimore, and Mrs. S. T. R. Revell.

The pamphlet, "Ten Suggestions for Small Auxiliary," by Mrs. S. T. R. Revell, was read by Mrs. Hafford.

The Students' Educational Loan Fund was brought up for discussion. A motion was made by Mrs. W. C. Hafford, and seconded by Mrs. J. L. Walker, that \$5.00 be sent by this Auxiliary for this year.

A report was called for from the Hygeia Chairman, but there was no one present to give this report.

The Constitution and By-Laws presented at this meeting were read three times by the Secretary. A motion was made by Mrs. T. H. Clarke, seconded by Mrs. J. L. Walker, that the Constitution and By-Laws be accepted with several minor amendments.

The report of the Nominating Committee was called for and presented by Mrs. H. G. Huey in the absence of Mrs. Askew, who was Chairman of this committee.

The following officers were elected:

Mrs. W. M. Folks, Waycross, *President*.

Mrs. Jack McMicheal, Quitman, *Vice-Pres.*

Mrs. R. C. Walker, Waycross, *Sec.-Treas.*

Mrs. C. M. Stephens, Waycross, *Parliamentarian*.

A motion was made by Mrs. A. S. M. Coleman, seconded by Mrs. Reavis, that the above officers, when they were named, be elected.

The purpose of the Auxiliary was discussed by the President, and the past work

and what is being done for the benefit of the new members who were present.

There being no further business a motion was made for adjournment.

The visitors were honor guests at a beautiful tea given by the Homerville Woman's Club at the Club House in the afternoon and at seven o'clock Dr. and Mrs. H. G. Huey entertained with a delightful dinner at Hotel Musgrove in honor of the doctors and their wives.

The next district meeting will be held in Brunswick, Ga.

Mrs. Ruth I. Walker,
Secretary-Treasurer.

JEFFERSON COUNTY

The Medical Society and Auxiliary of Jefferson County, met at the home of Dr. and Mrs. J. R. Lewis on Friday night, November 6th. Mrs. Lewis and Mrs. Bryson were joint hostesses and arranged a most entertaining program for this occasion.

Miss Mary Frances Lewis gave a reading. Several clever songs and games pertaining to medicine were sung and played. The chief feature of the program was a very interesting and informing paper on Doctor Lister, father of surgery, read by Mrs. J. J. Pilcher, of Wrens.

After the program, the guests were invited into the dining-room, where a delicious supper was served. The table was beautiful in all of its appointments, the Thanksgiving motif being emphasized in all of the decorations.

Eight members enjoyed Mrs. Lewis and Mrs. Bryson's gracious hospitality—Dr. and Mrs. J. J. Pilcher, Wrens. Dr. and Mrs. S. T. R. Revell, Dr. Bryson, Dr. Lewis, and Dr. and Mrs. S. C. Ketchin.

COMMUNICATIONS SIR WILLIAM OSLER

To the Editor:

Impressions made on the reader by "The Life of Sir William Osler" as portrayed by Cushing.

Old to some, new to others, but to all a model, a guide, and an inspiration, such is the story of the life of Sir William Osler.

Cushing's work has most surely fulfilled his avowed purpose of presenting "merely the outline for the final portrait, to be painted out when the colors, lights, and shadows come in time to be added colors and lights chiefly, for only one heavy shadow is cast, just before the end". The author begins with Osler's early life in Canada and the Canadian academies, traces his student years through the Toronto and Magill University Medical Schools, and then, flawlessly concealing the effort which all good writing demands, permits the thread of his subject's life to unravel itself through the years at Philadelphia, Baltimore, and finally until the end, at Oxford: The requisite amount of routine duties, activities, and personal letters to make the story complete are interspersed with unobtrusive ease.

One reads this book and feels as if he were rushing

along side by side with the Master Physician, aiding him in his fight for better public health measures, or again, attending, organizing and maintaining with him, medical societies and libraries, and then hurrying away from these to the laboratory and post-mortem room, no sooner to have gotten steadily at work than an ailing friend must be comforted, and finally, when day is done, of sitting by his fireside, basking in the philosophical glow of the Golden Rule as he practiced it, and listening to the words known to generations of medical students—"Observe, Record, Tabulate, Communicate". One rightfully gains the impression that any attempt to classify his various attainments would be folly. Perhaps the greatest testimonial to them lies in the work done by his associates and students, a work which has erected a monument in the annals of medicine sufficient in itself ever to keep his memory dear to the student of Medicine.

The fledgling can find no better book to read, nor any better life to emulate. The author's sweeping style, combined with the vigorous character possessed by his subject, literally keeps the reader on the edge of his chair. Osler's life reflects the medical life of his age, but greatest of all for the students, whose spirit may often be numbed by routine, it possesses the fuel to replenish the three great fires of the human soul—hope, love, and faith.

MELL B. WELBURN, M.D.

Nov. 29, 1931.

General Hospital, Cincinnati, Ohio.

MEAD'S 10 D COD LIVER OIL

Professors Drummond and Hilditch have recently confirmed that for high vitamins A and D potency, Newfoundland cod liver oil is markedly superior to Norwegian, Scottish, and Icelandic Oils.

They have also shown that vitamin A suffers considerable deterioration when stored in white glass bottles.

For years, Mead's Cod Liver Oil has been made from Newfoundland oil. For years, it has been stored in brown bottles and lightproof cartons.

Mead's 10 D Cod Liver Oil also enjoys these advantages, plus the additional value of fortification with Mead's Viosterol to a 10 D potency. This ideal agent gives your patients both vitamins A and D without dosage directions to interfere with your personal instructions. For samples write Mead Johnson & Company, Evansville, Ind., U. S. A. Pioneers in Vitamin Research.

During the calendar year 1930 the incidence of influenza in the United States was unusually low. The death rate from influenza for the year 1930 was 18.7 per 100,000 population as compared with 54.6 per 100,000 population in 1929, and 42.1 in 1928. The fact that there was no general outbreak of influenza during 1930 probably helped greatly in keeping the general death rate for the year low, as there is usually an increase in the number of deaths attributed to certain other diseases when influenza is prevalent.—*United States Public Health Service, December 28, 1931.*

BOOK REVIEWS AND ABSTRACTS

BOOK REVIEWS

Hypertension and Nephritis, by Arthur M. Fishberg, M.D., Associate Physician to Beth Israel Hospital; Adjunct Physician to Mount Sinai Hospital, New York City. Second Edition. Philadelphia, Lea & Febiger, 1931. 619 pages. Price \$6.50.

This book is another good one that might well grace any physician's shelf. It represents a careful review with excellent digestion of a world of material. Few subjects have received more attention in medical literature during recent years than hypertension and nephritis. No contribution of importance that is known to the reviewer has been slighted, and many that were not familiar to him have been included. And it is not a dull rehash of previous work, but a carefully considered and clearly written exposition.

The details of the latest and most complicated laboratory procedures, as well as their rationale, are carefully explained, and yet the book is primarily written for the general practitioner. There is, fortunately, a growing tendency on the part of leaders in medicine to appreciate that very elaborate laboratory studies are valuable principally for the purpose of securing a better understanding of pathologic physiology. Such tests, valuable as they are, are impracticable for the average practitioner—and would be too expensive for his average patient. But an understanding of them will give the doctor a deeper and more intelligent grasp of the situation and enable him to give his patients correspondingly better treatment.

Among the things that struck the reviewer most were the exquisite photographs of the ocular fundus in various diseases.

It is both the privilege and the duty of a reviewer to point out certain things that he feels are not so fine. There are not many things to which exception can be taken in this book. However, when the first three-fourths of a book entitled "Hypertension and Nephritis" is devoted to nephritis, it seems that something is wrong. And Fishberg does not set as great store by the neurotic elements in the causation of hypertension as do Houston, Roberts and Kenyon. The reviewer believes that those three good Georgians have the right dope in this business.

However, this book is thoroughly sound and sensible, and it will be a rarely well-informed physician who will not be able to do better by his patients suffering from Bright's disease after studying it, and most doctors will have a better comprehension of the present state of knowledge as regards hypertension.

L. M. B.

Health Protection for the Preschool Child. A publication of the White House Conference on Child Health and Protection.

This report of the White House Conference on Child Health and Protection undertakes to answer the question: To what extent is the health of the

children in the United States who are the nucleus of the next generation being protected? The report is based on house to house inquiries made by representatives of nearly a thousand different local organizations, reaching 146,000 children in three-fourths of all cities of over 50,000 population and 37,000 children living in the rural areas of 42 states. The result is the most complete and graphic picture of how preventive medical and dental services are being applied to the preschool child which has yet been presented. The book is an invaluable addition to the literature of the preschool child. It includes an introductory statement regarding the present status of preventive medical and dental measures, a discussion of the findings of the survey, a series of reference tables showing in detail the survey findings in each area studied, and a discussion and explanation of the administration of the survey and the computation of the data collected. This report was made to the Section on Medical Service of the White House Conference on Child Health and Protection by George Truman Palmer, Dr. P.H., Chairman, Subcommittee on Statistic, Mathew Derryberry, Research Assistant, and Philip Van Ingen, M.D., Chairman, Committee on Medical Care for Children. Publishers: The Century Company, 353 Fourth Avenue, New York City. Price \$2.50.

BOOKS RECEIVED

Gynecology and Urology for Nurses. By Samuel S. Rosenfeld, M.D., Adjunct Obstetrician and Gynecologist Lebanon Hospital, New York City; Lecturer in Obstetrics and Gynecology to Labanon Hospital School for Nurses; Diplomat of the American Board of Obstetrics and Gynecology. Contains 230 pages, illustrated. Publishers: William Wood and Company, 156 Fifth Avenue, New York City. Price \$2.00.

Emergency Surgery. By John William Sluss, A.M., M.D., F.A.C.S., Associate Professor of Surgery, Indiana University School of Medicine; Zone Surgeon, United States Fidelity and Guarantee Company; Consulting Surgeon, City Hospital; Staff Surgeon, Methodist and St. Vincent Hospitals, Indianapolis, Ind. And John Walter Martin, M.D., F.A.C.S., Vice-President and Surgical Director, United States Fidelity and Guarantee Company, Baltimore, Md., assisted by David Hart Sluss, M.D., F.A.C.S., late House Surgeon, Boston City Hospital, and New York Hospital for Ruptured and Crippled; Matriculate University of Paris, Ecole Pratique; Staff Surgeon, Indianapolis City Hospital, Indianapolis, Ind., and Camilius Bowen De Motte, B.S., M.D., late house Surgeon, Boston City Hospital; Staff Surgeon, Methodist and City Hospitals, Indianapolis, Ind. Fifth Edition, revised and enlarged with 797 illustrations, some of which are in colors. Contains 879 pages. Publishers: P. Blakiston's Sons & Co., 1012 Walnut Street, Philadelphia.

Conquering Arthritis. By H. M. Margolis, M.D. The publishers in describing the value of the book say, "For the arthritic patient who has become discouraged because of the duration of his disease, regardless of the excellent care which his physician has given him, this book comes as a 'message of hope'." Contains 192 pages. Publishers: The Macmillan Company, New York City.

The Human Voice: Its Care and Development. By Dr. Leon Felderman, Philadelphia. The publishers say: "A noted Philadelphia Oto-Laryngologist has written this book—a simple and clearly understandable treatise on every phase of voice production". Contains 301 pages. Publishers: Henry Holt and Company, One Park Avenue, New York City. Price \$2.50.

Physicians' Manual of Birth Control. By Antoinette F. Konikow, M.D., author of "Voluntary Motherhood". Contains 245 pages. Publishers: Buchholz Publishing Company, 1440 Broadway, New York City.

A Doctor of the 1870's and 80's. By William Allen Pusey, sometime President of the American Medical Association and of the American Dermatological Association. Contains 153 pages. Publishers: Charles C. Thomas, 220 East Monroe Street, Springfield, Ill. Price \$3.00.

NEWS ITEMS

Dr. Hershel A. Smith and Dr. B. T. Wise, of Americus, attended the meeting of the Association of Railway Surgeons of the Seaboard Air Line Railway at Miami, Florida, December 8, 9, 10.

Staff meeting of the Crawford W. Long Memorial Hospital and Clinic, Atlanta, was held on December 10th. Drs. C. G. McCay and H. S. Phillips gave case reports on "Cerebral Thrombosis Complicating Post-Operative Pneumonia"; Dr. E. A. Bancker, Jr., discussed the "Importance of Postmortems in Private Practice".

The Fulton County Medical Society held its semi-monthly meeting at the Academy of Medicine on December 17th. The program consisted of the following order of business: 1. Call to order by the President. 2. Applications for membership. 3. Annual message of the retiring President and discussion. 4. Reports of committees and officers. 5. Memorial services for members who died during the year. 6. Miscellaneous business. 7. Election of officers. Nominations for officers: President-Elect, Dr. W. E. Barber; Vice-President, Dr. Trimble Johnson; Board of Trustees, Dr. H. H. Askew; Board of Arbiters, Dr. J. D. Manget and Dr. James J. Clark.

The Georgia Medical Society met at its hall in Savannah on December 8th. Annual reports by committees and officers were submitted. Officers were elected for the ensuing year.

The Thomas County Medical Society held its meeting on December 8th. The program consisted of scientific papers which were read and discussed. Officers were elected for 1932. The members were entertained at dinner by the Woman's Auxiliary at the Archbold Memorial Hospital, Thomasville.

The Jackson County Medical Society met at the Harrison Hotel, Jefferson, on December 7th. Dr. M. B. Allen, Hoschton, gave a clinic on "Diagnosis of Tuberculosis". Officers were elected for the ensuing year. The January meeting will be held in Commerce.

Dr. James Alexander Miller, New York City, read a paper on "Recent Advances in Our Knowledge of Tuberculosis" by invitation at the meeting of the Clinical Society of the New York Polyclinic Medical School and Hospital, New York City, on January 4th. Dr. Howard Lilienthal, New York City, read a paper entitled "Some Aspects of the Surgery of Pulmonary Tuberculosis".

The United States Civil Service Commission announces an open competitive examination for Junior Medical Officer (Interne). Applications must be on file with the Manager of the Fourth United States Civil Service District, Washington, D. C., not later than January 19th. The entrance salary is \$2,000.00 a year, less \$60.00 annually for quarters. Competitors will be rated on their education, training and experience.

Dr. J. R. McGibony, formerly of Greensboro, Ga., has removed to Belcourt, North Dakota, and opened offices for the practice of medicine.

Dr. J. Calvin Weaver, 78 Ellis Street, N. E., Atlanta, announces that he will limit his practice to surgery of the brain and spinal cord and to organic diseases of the nervous system.

The American Association for the Study of Goiter, through its Corresponding Secretary, Dr. J. R. Yung, Terre Haute, Ind., again offers an award of \$300.00 for the best essay based upon original research work on any phase of goiter presented at their annual meeting in Hamilton, Ontario, Canada, June 14, 15, 16, 1932.

Dr. Virgil W. Osborne announces the removal of his office to 610 Doctors Building, 478 Peachtree St., N.E., Atlanta, and that he has limited his practice to diseases of children and infant feeding.

The American Public Health Association, 370 Seventh Avenue, New York City, will hold its next annual convention in Washington, D. C., October 24-27th. The Willard Hotel will be headquarters.

The Alabama, Florida, Georgia, Louisiana, and Mississippi Sectional Meeting of the American College of Surgeons will be held at the Mayflower Hotel, Jacksonville, Florida, February 1-2.

Dr. Elloit L. Baker, Jr., Columbus, has been appointed house physician for the Georgia Baptist Hospital, Atlanta, for 1932-3. Senior Internes will be Dr. J. E. Billings, Fairmount; Dr. K. B. Rounds, Laurel, Miss.; Dr. C. C. Smith, Ft. Payne, Ala., and Dr. Lester A. Brown, Jr., Decatur. Dr. C. B. Landham, Anniston, Ala., will be junior interne.

Dr. Logan Thomas, Dawson, has been elected official surgeon for the W. C. Davis Camp No. 15, United Spanish War Veterans.

Dr. N. J. Newsom, Sandersville, entertained the members of the Washington County Medical Society at his country home on December 16th.

The Food and Drug Administration caused the seizure in November of 112 consignments of foods and drugs found to violate the national pure food and drug law, says W. G. Campbell, Director of Regulatory Work, U. S. Department of Agriculture. The Administration also sent to the Solicitor of the Department cases involving 45 stocks of foods and drugs shipped in violation of the law, with recommendation for prosecution of shippers. November actions under the law involved a wide variety of foods and drugs, including anaesthetic ether, ergot preparations, alleged "cures" for influenza, sore throat, rheumatism, gout, and other maladies, decomposed rabbits, "embalmed" cream, and apples and vinegar found to contain traces of arsenic.—U. S. Department of Agriculture, Washington, D. C., December 8, 1931.

The Fulton County Medical Society held its regular meeting at the Academy of Medicine, Atlanta, on January 7th. Officers were installed for 1932. Inaugural address by the society's new President, Dr. Dan Y. Sage, Atlanta. Dr. Allen H. Bunce, Atlanta, gave the report of the Committee on Awards.

Dr. and Mrs. W. O. Shepard, Bluffton, entertained the members of the Tri County Medical Society at their home on December 16th. Officers were elected for 1932. Dr. C. K. Sharp, Arlington, read a paper entitled "Pulmonary Tuberculosis".

The Randolph County Medical Society met at Cuthbert on January 6th. Dr. J. C. Patterson, Cuthbert, read a paper on "Anadenia"; Dr. Loren Gary, Georgetown, gave a case report.

The American College of Physicians will hold its next annual session at Los Angeles, Cal., April 8-11.

The United States Public Health Service reports that "The Geographic distribution of smallpox in the United States is very irregular. Seven states—Kansas, Delaware, District of Columbia, Maine, Maryland, New Hampshire and Rhode Island—reported no cases of smallpox in 1930." The greatest prevalence of smallpox in that year was in South Dakota, Indi-

ana, and the state of Washington. The death rate from tuberculosis in 1930 was the lowest ever recorded by the Public Health Service.

The Fulton County Pediatric Society held its regular meeting on December 10th. The following officers were elected for the ensuing year: Dr. T. Bolling Gay, President; Dr. Joseph Yampolsky, First Vice-President, both of Atlanta; Dr. H. Homer Allen, Decatur, Second Vice-President; Dr. Roger W. Dickson, Atlanta, Secretary-Treasurer.

The New York Polyclinic Medical School and Hospital, New York City, on account of the increased number of patients, has opened additional clinics in Allergy and Obstetrics. The Clinic in Obstetrics is held on Monday, Thursday, and Saturday, from 1:00 to 2:30 p.m., and the Allergic Clinic daily from 9:30 to 10:30 a.m.

The American Laryngological, Rhinological and Otological Society, Inc., held its Eastern Section meeting at the New York Polyclinic Medical School and Hospital, New York City, January 9th.

The Ware County Medical Society held its monthly meeting at Phelps' Dairy, near Waycross, on January 6th. Its members were entertained at a turkey dinner by Dr. Paul McGee. Titles of scientific papers on the program were as follows: "Preservation of Deciduous Teeth," Dr. J. C. Peters, Waycross; "Focal Infection," Dr. G. R. Lovelace, Waycross; "Impacted Unerupted Teeth," Dr. Paul McGee, Waycross.

OBITUARY

Dr. Alonzo Terrell Ray, Sharon; member; University of Georgia Medical Department, Augusta, 1893; aged 62; died at his home on November 24, 1931. He was one of the prominent practicing physicians of Taliaferro county and owned extensive farming interests. Doctor Ray served at one time as Chairman of the County Commissioners and as a member of the Board of Education. Surviving him are his widow, one son, J. Terrell Ray, Sharon; one daughter, Mrs. R. C. Riley, Sparta. Interment was in Raytown cemetery.

Dr. William W. Smith, Clio; member; University of Georgia Medical Department, Augusta, 1909; aged 46; was killed in an automobile accident on the Coastal Highway, near Savannah, on November 29, 1931. Vision on the highway was very limited at the time of the crash on account of a dense smoke and evidently was the main factor in the cause of the accident. Doctor Smith was a prominent physician of Effingham county, where he had practiced continuously since graduating in medicine. He was a member of the Georgia Medical Society, Masons, and the Methodist church. Surviving him are his widow, six sons, O. E., W. W., Jr., L. M., and B. H. Smith of

Clyo: J. B. and J. W. Smith of Savannah; two daughters, Mrs. W. B. Futrell, Savannah, and Mrs. E. S. Bolen, Lakeland, Fla. Funeral services were conducted from his home and interment in the Laurel Hill cemetery.

Dr. Lawrence R. Brown, Sharon; University of Georgia Medical Department, Augusta, 1888; aged 69; died at his home on November 26, 1931. He practiced medicine in Thomson and Sharon for more than forty years. Outside of the practice of his profession, his greatest interest was in the educational advancement of his county and state. Doctor Brown served almost continuously on the local and county board of education and was a member of the Taliaferro County Board of Education at the time of his death. Surviving him are his widow, three daughters: Misses Gladys and Christine Brown, Sharon; Mrs. T. M. Brinkley, Staunton, Va; six sons; Capt. L. D. Brown, U. S. Army, Philippine Islands; L. H. Brown, Smyrna, Turkey; Dr. Bert Brown, Winston-Salem, N. C.; A. D. Brown, Thomasville; Dr. Walter E. Brown, Savannah; and Kendrick Brown, Sharon. Funeral services were conducted from the Sharon Methodist church by Rev. W. F. Lunceford.

Dr. Samuel D. Warnock, Atlanta; Emory University School of Medicine, Emory University, 1893; aged 63; died at a private sanitarium on November 30, 1931. He was born and reared in Union Springs, Ala. Dr. Warnock took postgraduate work in Chicago and New York City. He was city physician for Atlanta for more than ten years until 1930 when he resigned on account of ill health. He was a member of the Masonic lodge and the First Methodist Church. Surviving him are his widow, one brother, S. P. Warnock, Atlanta; two sisters, Mrs. St. George Tucker, and Miss Charley Warnock, of Richmond, Va.

Dr. John M. Courson, Devereux; University of Georgia Medical Department, Augusta, 1876; aged 78; died at his home on December 3, 1931. He was one of the best known and most esteemed citizens of Hancock county, and was the oldest living graduate of the University of Georgia Medical Department. Surviving him are his widow, three daughters, Mrs. Jack Lumpkin, Macon; Mrs. George Wood and Mrs. J. M. Wood, both of Devereux; two sons, Sumter and Carlton C. Courson, both of Devereux.

Dr. James Nottingham Carter, Savannah; member; Vanderbilt University School of Medicine, Nashville, Tenn., 1903; aged 54; died at his home on December 6, 1931. He had practiced medicine in Savannah for twenty-eight years. Doctor Carter served as alderman of the city of Savannah for four terms, was chairman of the Board of Health at one time; United States government physician for prisoners in Savannah. He was a member of the Masonic lodge, Oglethorpe Club, and Georgia Medical Society. Surviving him are his widow, one son, James N. Carter, Jr.; three brothers,

Dr. W. W. Carter, New York City; Dr. B. T. Carter, Atlanta; Dr. Chas. F. Carter, Nashville; and one sister, Mrs. Jas. A. Smith, Macon. Funeral services were conducted from the residence by Rev. C. C. J. Carpenter. Interment in Bonaventure cemetery. The city officers and mayor of Savannah with many others formed an honorary escort.

Dr. Kirby S. Williams, Thomaston; member; Emory University, 1894; aged 67; died at his home on December 13, 1931. He was one of the pioneer citizens of Upson County and enjoyed an extensive practice. Surviving him are two daughters, Mrs. Bessie Williams Gunter, Thomaston, and Mrs. R. C. Young, Newnan; one son, Harry B. Williams, Thomaston. Funeral services were conducted from the residence by Rev. J. G. Logan and Rev. C. S. Durden.

Dr. Thomas L. Arnold, Kingston; member; Kentucky School of Medicine, Louisville, 1888; aged 80; died at his home of paralysis on March 3, 1931. He was born and reared in Bartow county. Doctor Arnold was one of the pioneer citizens and physicians of the county. He did an extensive practice throughout Bartow and adjoining counties and was held in high esteem by hundreds of friends and acquaintances.

Dr. Alfred F. White, Flovilla; member; Georgia College Eclectic Medicine and Surgery, Atlanta, 1892; aged 76; died at a private hospital in Atlanta on December 24, 1921. He was born and reared in Jasper county and a member of a prominent family. Doctor White was local surgeon for the Southern Railway for many years and was a member of the State Board of Examiners for more than twenty-five years. He was well known over the State and his remarkable ability as a physician and surgeon was recognized by the profession. Doctor White was a member of the Butts County Medical Society, Sixth District Medical Society, Southern Medical Association, American Medical Association, and the Flovilla Methodist church. Surviving him are his widow; two daughters, Miss Virginia White, Flovilla; Mrs. J. D. Persons, Monticello; two sons, Dr. Robert E. White, St. Augustine, Fla., and A. F. White, Jr., Flovilla. Funeral services were conducted from the Flovilla Methodist church and interment in the church yard.

Dr. Charles F. McLain, Calhoun; member; Emory University School of Medicine, Emory University, Ga., 1895; aged 64; died at his home on December 26, 1931. He was born and reared at Acworth. For many years he was engaged in an extensive practice of medicine in Gordon and adjoining counties. Doctor McLain had many devoted friends. He was a member of the Gordon County Medical Society and the Calhoun Methodist church. Surviving him are his widow, one daughter, Miss Lois McLain, Calhoun; two brothers, T. A. McLain, Calhoun; and M. L. McLain, Marietta; one sister, Mrs. D. M. Watts, Atlanta. Funeral services were conducted from the Methodist church and interment in the church yard.

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PRURITUS ANI*

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Atlanta

An exceedingly troublesome alteration of sensation in the perianal and anal skin extending up in the anal canal to the pectinate line and at times on to the vulva and scrotum, is a disorder known as pruritus ani, or itching at the anus. While, curable, as a rule, it may prove very obstinate.

Itching, is expressed by the patient as tingling, pricking, burning or a feeling of insects crawling on the skin. The characteristic of the altered sensation is that it creates a desire to scratch and that it is worse at night after the patient gets warm in bed. In its most intense form the greater part of the night is rendered sleepless or the patient is often awakened finding himself indulging in his favorite pastime—scratching. For this purpose they use their fingernails or some rough mass of clothing, the rougher and harder the better. For a time the irritation caused by scratching affords apparent or seeming relief. In the most exaggerated cases, the itching is not confined to the night time, but persists throughout the day until the patient almost becomes a mono-maniac concerning his anus. Itching and scratching are thus concomitant. The intensity of the itching is evidenced by the excoriations or skin manifestations caused by scratching.

As a result of the constant irritation, the epithelium of the parts is removed. The delicate skin which lines the orifice or verge of the anus and frequently that of the perineum is excoriated, the parts left angry, thus paving the way for fissures, infection, and ulceration, and in every way adding to the discomfort of the patient.

Appearance of the Local Parts

Much depends upon the duration of the disease, also upon the amount of scratching or irritation to which the parts have been subjected. A recent case will generally show the skin covering the margin of the anus and a little way out on the perineum to be red and, if it has been recently irritated, moist. In other words a part of the epithelial covering has been removed, and from the excoriated portion of the surface there exudes a small quantity of clear serum, keeping the parts wet and sensitive. If it has not been recently irritated, the anal skin will be discolored and covered with small scars or little flakes of epithelial cells which have perished but have not yet become detached.

The appearance of long standing cases may show that very marked changes have taken place. The natural pigment of the skin in this part of the body may be removed and in its place, patches of whitish looking skin having the appearance of tallow, arranged in irregular patches surround the anus and extend a short distance up into the anal canal. The skin surface feels thickened to the touch. In addition to these changes, a lot of minute excoriations and fissures appear and there may be marked hypertrophy of the radiating folds of the perianal skin. The minute fissures are most troublesome and are very much exaggerated in warm weather by the acid perspiration.

Etiology

There is no one specific or definite cause responsible for pruritus, therefore, it is essential to take a complete history and make a thorough physical examination of each individual case. It is found mostly in adult life; occasionally it occurs in young subjects. Threadworms (oxyurides) is the usual cause in children. It is more frequent in men than women. Climate and seasons exert no influence other than that warm weather in-

*Read before the Medical Association of Georgia, Atlanta, May 15, 1931.

creases perspiration and in this way, may be an indirect factor. Cooke believes that blondes are more often the subject of this malady than brunettes and that pruritus is rarely associated with hysteria and other recognized neuroses.

The etiologic factors are classified as: Diatetic, constitutional, reflex, and local.

Diatetic

A diet of highly seasoned foods, idiosyncrasy to certain foods such as fish, strawberries and the like, are exciting causes. In other cases pruritus may be caused from the excessive use of coffee, tea, tobacco, or spirits. It is very common in the plethoric male and in hearty eaters. Chronic constipation accompanied by intestinal fermentation, flatulence, and catarrhal inflammation of the gastro-intestinal tract are important factors in etiology of pruritus.

Constitutional

Diabetes, gout, rheumatism, syphilis, and hepatic or cardiac diseases causing congestion of the hemorrhoidal plexus have been assigned as causes. Diabetes is a common constitutional cause and it is probable that some of these pruritus cases that do not show sugar in the urine, are potential diabetics.

Reflex

The intimate relationship between the bladder, urethra, prostate gland in the male, and the pelvic organs in the female, with the rectum, must not be overlooked as a possible reflex cause of pruritus when other causes cannot be found. For example: Stricture of the urethra, hypertrophied prostate, chronic vesiculitis, stone in the bladder, cystitis, chronic vulvitis or endometritis have been assigned as reflex causes. Tuttle states that such reflex relations may sometimes be observed between gall-stones and pruritus.

Local

The anatomy and physiology of the parts are such that the lack of cleanliness deserves special mention. It is not uncommon to see persons who are otherwise well groomed in their personal habits, untidy in the anal region. The result is that particules of fecal matter are left there to dry. This condition if permitted to continue, may cause irritation, tend to perpetuate or increase some inflammatory condition, especially in cases of pa-

tients who have prominent folds of the buttocks on which there is a dense growth of hair. These two conditions tend to bring about a moist surface of the perianal region and may prove to be direct causative factor of pruritus.

Hemorrhoids, fistula, fissure, cryptitis, stricture, foreign bodies, prolapse, injuries to the mucous membrane from scratching or the passage of a constipated mass, polyp, chancre, chancroids, intestinal diseases which produce an irritating discharge and infection of the perianal and anal lymphatic channels; in fact, any disease of the anus, anal canal and rectum, may act as a contributing cause. In women, a profuse vaginal discharge is often a factor. F. C. Wallis and T. C. Hill believe that a frequent cause is a superficial ulcer or abrasion of the anal canal irritated by the "ever altering condition of the sphincters."

Certain skin diseases in which itching is the prominent symptoms, may occur in the region of the anus, such as eczema, erythema and herpes must be differentiated from the true pruritus. Parasites, animal or vegetable, such as pediculi, oxyurides, the itch-mite and trichophyton or fungi, are local causes.

Dwight H. Murray in 1911 announced, after examining nineteen cases of pruritus ani, that streptococci were present on the skin in excessive numbers in all cases. Of five controls examined, only one was found to have streptococci present. He later reported 143 cases; streptococcus fecalis being present in 107. Hirschman reported thirty-four cases; streptococci being present in every one. It is probable that infection is a secondary and not a primary factor in pruritus ani, but in the persistent chronic cases the secondary pyogenic infection spreading through the local anal and perianal lymphatics and the continuity of the cutaneous and subcutaneous tissue as a lymphangitis, or cellulitis, is the chief factor that prevents recovery.

Treatment

There is no one definite cause responsible for pruritus ani, therefore, there can be no one specific treatment for all cases. The method of treatment should be based on the findings after a careful history and complete examination.

Plethoric red-faced individuals who are

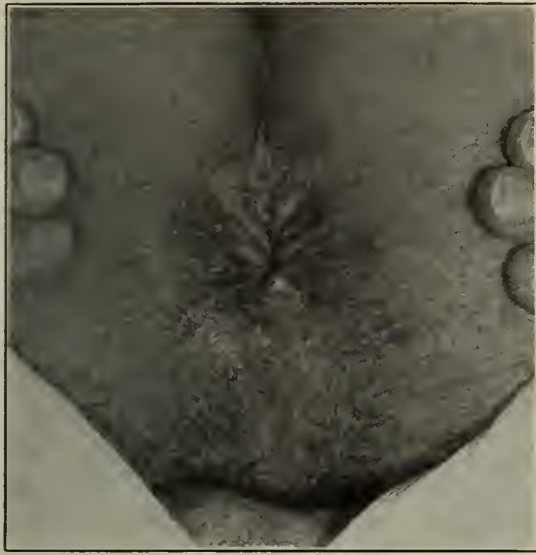


Figure 1

Pruritus Ani. Marked hypertrophy of the perianal radiating skin folds. This type of case is suitable for combined injection and operative treatment.



Figure 2

Perianal skin laid off in one-fourth inch squares for alcohol injection.

heavy eaters or "high livers" or frequently indulging in alcoholic stimulants, should cut down on their diet, abstaining from highly seasoned foods, coffee, tea, and condiments; alcoholic drinks and tobacco should be taken in moderation if a result is to be expected. Treatment of underlying disease such as diabetes, cardiac disorders, and syphilis is rational when these are the etiologic factors.

Locally, a multitude of measures have been proposed for the relief of pruritus ani. In no disease is cleanliness with soap and water more essential than in the treatment of pruritus ani from whatever cause. Where hemorrhoids, venereal warts, rectal polypi, fissures, fistula or other local rectal diseases are present, these should be considered as probable causes and corrected.

The most urgent indication from the standpoint of the patient, is the relief of itching. A valuable remedy is to bathe with hot water and soap (alkali or tar soap), allowing a thick lather of the soap to dry on the local parts after the bath, and remain over night. This not only tends to relieve the itching, but is stimulating and cleansing. The most frequent drug used to relieve itching is phenol, either as a lotion or an ointment in strengths of from 1 to 5 per cent. Other antipruritic drugs are menthol 3 to 4 per cent, camphor 2 to 4 per cent, chloroform 5 to 10 per cent,

black wash (lotion nigri), tincture of iodine 2 to 5 per cent, and silver nitrate 1 to 15 per cent. Any of these agents will afford more relief if preceded by hot sitz bath. Soothing applications such as boric acid ointment, calamine ointment, lubricating jelly, lead and opium wash and zinc oxide or any ointment containing one-fourth to one per cent nupercaine is valuable where the parts are excoriated.

In long standing cases with painful cracks, fissures, and excoriations, painting of the local parts with silver nitrate 15 per cent or balsam of Peru 10 per cent is often a valuable remedy.

Both autogenous and stock vaccines (staphylococcus, streptococcus and B-coli) are valuable adjuncts in the treatment of chronic pruritus caused by proctitis or colitis.

Non-specific proteins such as typhoid vaccines, peptone, leucocytic extracts and milk give apparently beneficial results in some cases but their value is difficult to estimate.

X-ray is often valuable in the treatment of persistent cases of pruritus ani, after local causes are corrected. About 15 to 20 per cent are cured by this method. A much larger per cent, (75 to 90) are relieved of symptoms, for from one to six months. When good results are obtained, it usually occurs in two or three treatments. Radium has likewise

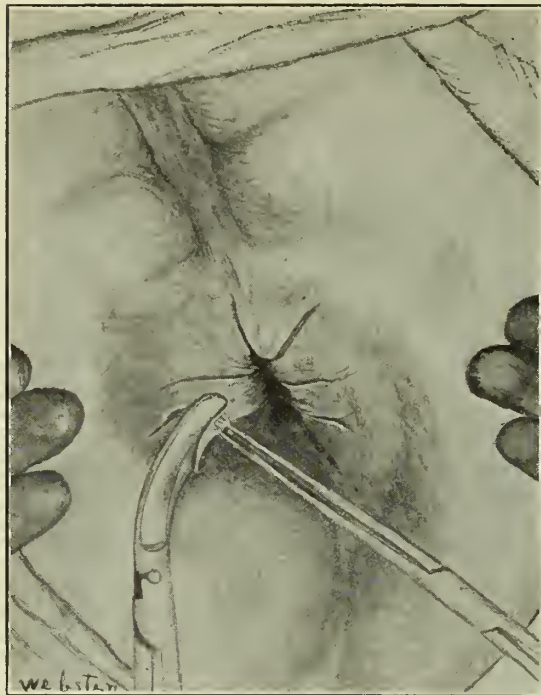


Figure 3

Author's combined injection and operative method of removing hypertrophied radiating perianal skin folds in treating pruritus ani due to edema or infection through the lymph channels from the anal crypts as shown in Figure 1.



Figure 4

Same case as shown in Figure 1, fourteen days after combined injection and operative treatment.

been advocated. Ultra violet rays and high frequency current have been used with varying doubtful results. Ionization or ionic medication, using such drugs as zinc sulphate, zinc premanganate, Lugol' solution of iodine and potassium iodide etc. have been advocated. The results are far from being favorable

Injection Treatment

Alcohol, hydrochloric acid, quinine urea hydrochloride, benacol, phenol, castor oil, and other chemical substances (even to double distilled water) injected subcutaneously have been recommended.

In my experience alcohol as advocated by Stone has been the most effective. The results are due to the destructive effects of the alcohol on the terminal sensory nerve filaments supplying the diseased area: the technic will be described under the combined injection and operative treatment.

The injection sub-cutaneously of about 60 c. c. of 1:2000 or 1:3000 hydrochloric acid solution equally distributed in four points around the anal canal preceded by infiltration in the tissues with novocain is

recommended by Granville S. Hanes. More recently castor oil to which is added a 5 per cent phenol and a weak dilution of nupercaine in about the same amounts as hydrochloric acid has been employed.

Yeomans advocated benacol which is claimed to be non-toxic, highly anesthetic, moderately antiseptic and to have a depressing action on nerve endings. About 2 c. c. is injected in one quadrant at a sitting. Treatment repeated in two or three days until the entire perianal area is injected. He reports satisfactory improvement in about 90 per cent of the cases.

Operation

The late Sir Charles Ball, 1905, described an operation for division of the cutaneous nerves supplying the anal region, the objective being to divide all sensory nerves supplying the skin in the involved area. The operation consists of a curved incision through the cutaneous structures on each side of the infected area, enclosing the entire ellipse with the exception of the narrow neck in front and behind the anus. These incisions are carried down to the sphincter

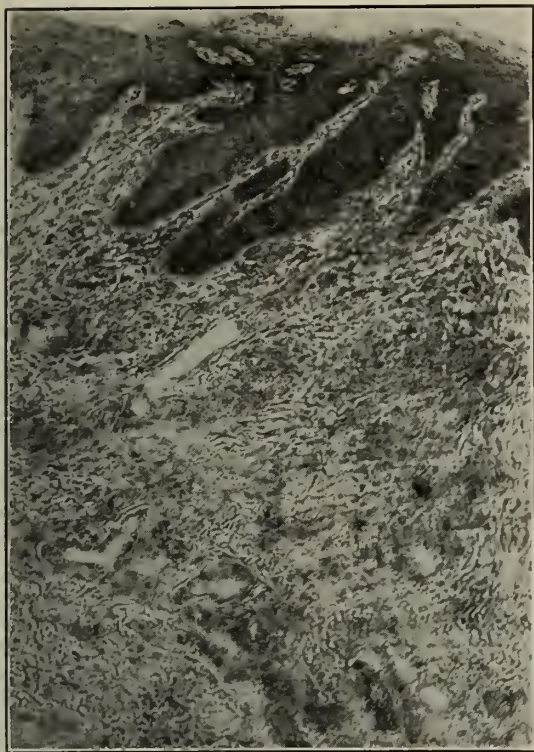


Figure 5

Photo-Micrographs of cutaneous and sub-cutaneous perianal structures showing dilated blood vessels and lymph channels, with marked round-cell infiltration and inflammatory changes. (Micrographic slides by Dr. Geo. F. Klugh and Photo-Micrographs by Dr. Jack Norris.)



Figure 6

Photo-Micrographs of perianal sub-cutaneous structures showing dilated blood vessels and lymph channels, with marked round-cell infiltration and inflammatory changes. (Micrographic slides by Dr. Geo. F. Klugh and Photo-Micrographs by Dr. Jack Norris.)

muscle and flaps are raised by careful dissection around the anal margin up to the mucocutaneous junction. All connection with the subcutaneous tissue being divided. The pedicles in front and behind are undercut, the flaps are replaced and retained by sutures. Infection, sloughing, and extensive scars may follow. This is rather a drastic procedure. Several modifications of this operation have been devised. L. J. Krouse advocated 6 or 8 linear incisions through the skin into the subcutaneous tissue beginning at a point outside the irritation following the course of the radii of a circle the center of which is the anal canal. The skin between the incisions being under cut. The advantage claimed for this is a better blood supply.

Destruction of the cutaneous nerve endings by actual cauterization has been resorted to in some of the most persistent cases. This is very radical, causing much deformity from scar tissue and it is doubtful if it is ever advisable.

The etiologic factor in a large per cent of

the inveterate cases that resist the usual forms of treatment is a pyogenic infection secondary to cryptitis, proctitis and colitis as a downward extension in the skin through the lymphatic channels or as subcutaneous and cutaneous sinus leading from an anal crypt or crypts as a lymphangitis or cellulitis caused by a continued mixed reinfection from above—staph, strep, and B-coli and the ever alternating change in the mucosa of the anal canal, rectum and the sphincter muscles.

Clinically, this type of case is characterized by persistent, almost intolerable itching, excoriations, moisture, changing of the pigmentation and hypertrophy of the radiating perianal skin folds. I am convinced that this type of case is best treated by a combined alcohol injection and operative method, and is the basis for presenting this paper.

The objective of the combined alcohol injection and operative treatment is: temporary paralysis of the sensory nerve endings, trimming up and drainage of the affected area. This gives immediate relief of the itch-

ing, and dryness of the area, later followed by fibrosis obliterating the lymphatic channels or subcutaneous sinuses and resulting in a cure.

Technic

Under anesthesia the patient is placed in a Sim's or lithotomy position. The field of operation having previously been prepared is now cleansed with an antiseptic solution. The buttocks are separated, placing the perianal skin on stretch. Now with a sharp spear pointed needle and metal tape the area is marked off in one-quarter-inch squares by scratching on the skin with the point of the needle.

With a hypodermic syringe using a fine short needle, 2 minims of pure 95 per cent grain alcohol is injected in the corner of each square subcutaneous, the needle piercing the skin vertically. The entire itching area extending well into the anal orifice is treated.

About 5 to 10 minutes should elapse after completing the injection to permit the alcohol to diffuse into the tissues.

A hypertrophied skin fold is picked up with a rat-tooth thumb forceps and trimmed away with scissors curved on the flat beginning at the outer end and extending well in the anal orifice up and including the anal crypt and anal valve. Other folds are treated in a like manner until all are removed. The buttocks are released and the edges of the wound fall together. The wound is painted with 2 per cent mercurochrome and dry dressing applied.

In 12 inveterate cases of this type, treated by this method, the results have been immediate and lasting in 11 cases.

Following the combined injection and operative treatment, there is slight soreness and numbness of the perianal region. Itching in most cases is relieved at once and within a few days the skin appears normal. If too much alcohol is injected through a single puncture, sloughing may result.

Summary

Pruritus ani is not a disease but a symptom of some dietetic, constitutional, reflex, or local disease. Therefore, a complete physical and proctologic examination is necessary to determine the cause, and the treatment of each individual case should be based on the find-

ings of this examination, if good results are to be expected.

420 Mortgage Guarantee Building.

Discussion on Paper of Doctor Pruitt

Dr. William H. Myers, Savannah, Ga.—We are indebted to Doctor Pruitt for bringing to our attention this subject, which has not received the consideration its seriousness warrants. This is one of the most distressing ills we have to encounter, and if he can give us some ideas that will help in the treatment of these patients he will add greatly to our therapeutic agencies.

There are many who believe that outside of the factors, syphilis, diabetes, and the other conditions mentioned, a constitutional state has much to do with the condition—a psychic state. Some believe that in order to get the best results the patient must be in proper mental condition to receive the treatment. The different methods of treatment, as Doctor Pruitt said, are none of them universally successful or desirable. The iodine and benzacol injections give relief in some cases, surgical measures are efficient in other cases, and some men use the injection treatment combined with the surgical. Infection is not uncommon following surgical procedures, and sloughing is always to be feared.

Dr. Beecher DuVall, Atlanta, Ga.—In one small monograph sixty-five different causes have been set forth for pruritus ani. Anything that has so many causes will lead us astray so far as treatment goes. In all these things I like to have a workable basis. Doctor Pruitt mentioned many causes, all of which have been furnished by different men. I like to classify the causes; first, the gastrointestinal, including the mouth. I am thoroughly convinced that many of the conditions of the gastrointestinal tract cause this pruritus. Next, the systemic causes, tuberculosis, syphilis, and diabetes. Next, and most common, the rectum; those diseases around the rectum and the anal canal, such as cryptitis, or fissures. Fissures are the most common cause around the rectum, aside from fungous infection and allergies. From the workable basis, gastrointestinal, including the mouth; fungous infection and secondary infections around the mouth. If you bear these in mind in trying to determine a definite cause of pruritus and you will stumble upon most of the cases. We are finding a larger percentage of fungous causes for pruritus ani than ever before. This cannot be demonstrated in the laboratory, but we commonly find evidence on the leg or elsewhere that will tell you that the pruritus is secondary to a fungous infection.

As to treatment, there have been as many treatments as causes. Hanes, of Louisville, Ky., has a method that is satisfactory, and there are various other surgical procedure. The alcohol injections and the surgical combination with the alcohol injections, and many different things give good results in the hands

of many men. Doctor Pruitt uses surgery in combination with alcohol injections, and uses an anesthetic. I use a local anesthetic of 1 per cent novocain, taking off the folds as necessary and injecting 95 per cent alcohol under the skin. This is very easy to do at the same operation. It is not necessary to do the whole operation at once. You can take a section at a time and gradually clear the condition up. The cases that demand this method are the most severe, that have the level, thick, indurated skin, and there may be large folds or crypts in association with it. These can be easily handled under local anesthesia, with an injection of alcohol along with it. I think only the extremely chronic or the secondarily infected cases should be injected with alcohol. I do not think Doctor Pruitt means to convey the impression that pruritus ani is a surgical condition, but that surgery is sometimes necessary to remove the cause and the alcohol injections to relieve the symptoms.

Dr. H. S. Alden, Atlanta, Ga.—I do not think the general practitioner fully appreciates this condition. We see so many neurotic symptoms following pruritus ani. Many of these cases are produced by fungous infections, and in many of them if you make a careful examination of the groin and the feet you will find involvement there also. Sometimes we can find the fungous in the crypts from the anus, but oftener the area is so irritated from treatment or scratching that the fungi cannot be found.

Doctor Pruitt spoke of using roentgenotherapy. As the underlying condition is being cleared up, the x-ray will relieve the itching if it is properly used, but we must remember not to continue the patient too long on roentgenotherapy, for irritation may result, and the patient sometimes develops a chronic radiodermatitis. Roentgenotherapy is excellent *when properly used* until the underlying cause can be eliminated.

After defecation it is a good plan to have the pruritus ani patient use a cotton pledget saturated in a boric acid solution for cleansing. The use of soap and water frequently is extremely irritating and makes the patient very uncomfortable.

Soothing applications should be used always. I often see large amounts of phenol included in the ointments that are recommended. I remember a physician in New York who said that he never bothered to find the cause of pruritus ani, that he simply gave the patients a 10 per cent phenol ointment, and they went home, got well, and never came back. That is just it—they never came back. They are still running, because of the intolerable burning and itching.

Dr. Marion C. Pruitt, Atlanta, Ga. (closing)—I wish to thank the gentlemen for their discussion. My object was to discuss a particular type of pruritus which resists almost every form of treatment and to suggest a new method. The slides illustrate this particular type of case, and the treatment I have used. My results have been very satisfactory with the method, and that was my reason for presenting the subject.

SYMPOSIUM ON UROLOGY

THE ADVANTAGES AND DISADVANTAGES OF IOPAX (UROSELECTAN) IN UROLOGIC DIAGNOSIS*

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For a number of years urologists have been in search of a substance which, upon intravenous administration, will be excreted by the kidneys in sufficient concentration to cast a shadow outlining the renal pelvis and ureter in the roentgenogram. The work of Rowntree and others at the Mayo Clinic, in 1923, demonstrated the feasibility and possibility of outlining the urinary tract by intravenous injections of large doses of sodium iodide. There were objections to sodium iodide on account of its poor tolerance by many patients and the fact that it was not excreted in sufficient concentration to give satisfactory urograms. Roseno, in 1927, found an organic combination of sodium iodide and urea, "Selectan Neutral", which was excreted in sufficient quantity by the kidneys to outline the renal pelvis clearly in many cases. This substance was toxic to some patients and consequently did not meet with general acceptance. Binz, Swink, and Von Lichtenberg, in 1929, brought out a drug called "Uroselectan", which has proved to be non-toxic when properly used and often reveals a clear outline of the urinary tract. The Council on Pharmacy and Chemistry of the American Medical Association, in accepting this drug, stipulated that it should be called "Iopax".

Iopax (Uroselectan) is undoubtedly a valuable addition to methods of diagnosis in diseases of the urinary tract. There are, however, certain limitations which must be borne in mind which will restrict the universal use of this compound. First among the disadvantages that may be mentioned is the frequency with which the outline of the kidney pelvis is so dim that exact interpreta-

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tion is difficult or impossible. Not only is the intravenous pyelogram frequently indistinct, but in many cases there is gas present that obscures the outline of the renal pelvis. This makes it exceedingly important to eliminate gas as largely as possible in the preparation of the patient. The clinical value of iopax depends largely upon the correct interpretation of the intravenous urogram. Pyelograms, as ordinarily made, are clearer in outline, showing minor defects with greater distinctness; consequently correct interpretation of intravenous pyelograms is more difficult than catheter pyelograms. It is often impossible to make the urologic diagnosis from an iopax picture alone; however, it frequently helps the urologist to plan cystoscopic procedures with a definite purpose in view and, in this way, may lessen the number of cystoscopic examinations required.

Intravenous urography offers the only means of visualization of the urinary tract in some cases, such as those with: impassable urethral strictures; markedly enlarged or hypertrophied prostate gland; severe bladder disease; certain anatomic defects or deformities rendering cystoscopy difficult or impossible; impassable ureteral obstruction; ureters that have transplanted into the rectum, and others.

Iopax is indicated in cases with bleeding, as from trauma or accident, to rule out kidney or bladder injury, such as ruptured kidney, ureter, or bladder.

Uroselectan is indicated in infants and children, and in old and debilitated patients as well as those who for some other reason prefer not to be subjected to a cystoscopic pyelogram. Another advantage of iopax lies in the fact that it gives a bilateral picture of the kidney pelvis, ureters and bladder at one time. It also gives an index to the kidney function.

The most striking iopax pictures are obtained when there is partial obstruction to the flow of urine from the renal pelvis, or ureter, allowing greater accumulation, provided the kidney function is adequate. Even in the presence of good renal function, unless there is a slight stasis, there may be a disappointing lack of detail in the renal calices. This is because the iopax drains out of the kidney

pelvis too quickly and completely to give the desired detailed outline. In the presence of slight obstruction of the ureter, the outline of the kidney pelvis and calices is frequently quite distinct. The dilated pelvis is clearly outlined in contrast to the other side when it is normal.

Intravenous urograms usually show distinctly the site of ureteral obstruction, which is an important factor in determining the plan of treatment. Visualization of both kidneys as routine has shown that hydronephrosis and hydro-ureter occur bilaterally more frequently than has been supposed. It is important in iopax pictures showing hydronephrosis to investigate the cause. This may be ureteral stricture, stone, anomalous blood vessels, neoplasm, tuberculosis, polycystic kidneys or atonic conditions of the ureter and kidney pelvis.

Intravenous urograms may be of value in the diagnosis and localization of calculi in the region of the kidneys or ureters. The shadow cast by the iopax often shows whether or not the suspected stone shadow is in line with the ureter or kidney pelvis. Iopax is of great value in determining the amount of hydronephrosis above a stone in the ureter.

Minor deformities in calices caused by infection or early renal tuberculosis are poorly shown by uroselectan unless there is present stasis in the ureter or kidney pelvis. Tumor of the kidney is also often poorly visualized by iopax. Late tuberculosis is often well outlined, as well as advanced stages of tumor where the deformity is more marked. An anomaly of the kidneys, such as double kidney, double pelvis, double ureter, horseshoe kidney, etc., will often be visualized by iopax pictures.

Since the iopax solution is non-irritating to the lining of the urinary tract, it has been used as a medium for cystoscopic pyelograms. On account of the non-irritating properties, bilateral pyelograms can be made with less danger. The cost of iopax has limited its use in catheter pyelograms.

In summarizing; iopax has certain distinct and definite indications; it also has definite and distant limitations.

Correct interpretation of iopax films is

often difficult and certain facts must be remembered in this interpretation. The distinctness of the urogram depends upon two factors; kidney function and stasis in the kidney pelvis. The rate of excretion or distinctness of the first film is a good index to the iopax and allows a more distinct visualization of the urinary tract.

Intravenous pyelograms will by no means supplant cystoscopic pyelograms but may greatly assist in the demonstration of conditions hitherto difficult or impossible to diagnose.

Intravenous pyelograms permit definite cystoscopic aims and lessen useless or unnecessary cystoscopy.

THE SIGNIFICANCE OF PUS IN THE URINE*

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The finding of pus in the urine may be of great or relatively little importance, depending upon a definite knowledge of certain factors for its proper evaluation. Thus one should know:

1. The sex of the patient.
2. The manner in which the specimen was collected.
3. The state of the patient's external genitalia.
4. The technic and reliability of the examination.

In no sense is pyuria a disease, but it is a symptom of disease in many instances. It may not be accompanied by any other symptoms and is hence most frequently discovered during the course of routine urine examinations.

A few leukocytes may be found in the urine of otherwise apparently normal individuals. It is not known whether these few cells are physiologic, or whether they are evidence of some otherwise symptomless pathologic condition. Apparently the presence of a few leukocytes does not necessarily mean disease.

What, then, is the upper limit of the nor-

mal? Here, opinions differ, though experience would seem to indicate that a count of less than 10 cells per high power field may be considered normal. Higher counts require investigation. If this investigation is undertaken systematically, much time will be saved and few diagnoses overlooked.

It is of primary importance that we remember that not every cloudy urine is a purulent urine. The cloudiness may be due to the presence of phosphates, urates, bacteria or chyle. These confusing factors are easily eliminated by simple chemical tests. One needs to remember that phosphates are dissolved by the addition of acid, such as acetic; that urates become soluble upon being heated; that bacteria may be recognized microscopically, and that chyle may be eliminated by shaking with ether which dissolves out the chyle and may be separated from the remaining clear urine.

Having determined the presence of pathologic quantities of pus, it becomes our duty to determine its source and cause. For this purpose we may conveniently divide the urogenital tract into two more or less arbitrary portions, the vesical neck being our dividing line. That portion below the vesical neck must be considered separately in the two sexes, while that above the urinary tract proper, may be considered without regard to sex.

It is a matter of common knowledge that specimens voided by the female patient are valueless in so far as the presence of pus is concerned, because of frequent contamination from the vagina—however, one would be indeed surprised at the great number of times this fact is either overlooked or ignored. If pus is found in such a specimen we must determine whether it be from the vagina, the urethra, the para-urethral glands, or from the urinary tract proper. The first step in this investigation is, therefore, the examination of the genitalia for the presence of infection. By carefully cleansing the vulva and external urinary meatus before collecting the specimen, we may with certainty eliminate the vagina as the source of the pus. This granted, the urethra must next be eliminated. If acutely inflamed, this is usually a simple matter, because pus may be seen exuding from

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the meatus, or may be expressed by the examining finger. In such a case the two-glass test may also be useful, the second glass being clear when the pus originates in the urethra. In the more chronic infections without much exudate the differentiation is correspondingly more difficult. The urethra may be washed carefully with a two-way catheter and the washings collected in a clean sterile vessel. A sterile catheter is then introduced into the bladder and some urine withdrawn. If the urethral washings contain pus while there is none in the catheterized urine, we have positively determined that the urethra is the source of the pus. On the other hand, if there is pus in the catheterized urine and none in the urethral washings, it is evident that the source is above the vesical neck.

Our approach toward the solution of the problem of pyuria in the male is somewhat different. When pus is discovered in the urine of such a patient, he should be required to pass his urine into two glasses—this is the first step in our procedure. If we remember that the first glass contains the bladder urine plus the washings from the entire urethra, while the second glass contains only the urine as it lay in the bladder, we have at once a simple test for the localization of the source of the pyuria in one of our two subdivisions of the genito-urinary tract. Other more complicated tests have been devised from time to time, but we have never been able to see their advantage over the two-glass test as a routine measure. The three glass test may be of value in certain cases of prostatorrhea, spermatorrhea, or chronic prostatitis wherein the milking process at the end of urination may empty the prostatic ducts, rendering cloudy the last few drops of urine.

The purulent first glass means infection below the vesical neck. Here the problem resolves itself into a study of the urethra and its generative adnexia. The first step in this study is the examination of the external genitalia with a search for infectious processes such as balanitis, balano-posthitis, paraphimosis, or a peri- or para-urethral abscess which might be the source of the pus. In acute urethral infections, particularly of the penile portion, the diagnosis is usually comparatively simple, being based upon the finding of a

purulent exudate. Naturally, a complete diagnosis includes a bacteriologic study of the exudate. Acute inflammation of the posterior urethra, whether alone, or, as is more usual, accompanied by inflammation of the anterior urethra, is likewise manifested by a cloudy first glass. In these cases the second glass is usually cloudy also, because of the fact that a profuse, purulent discharge in the posterior urethra always involves the bladder neck and there is a reflux of this secretion into the bladder, rendering its contents cloudy. Such cases frequently have a terminal hematuria which adds to the cloudiness of the second glass. The second glass is often further contaminated by secretion squeezed from the walls of the urethra or from the prostatic ducts by the ejaculatory action of the external sphincter at the end of urination.

In chronic anterior or posterior urethritis the first glass is clear with shreds of mucus, which upon microscopic examination proved to be filled with pus cells. In this type of case, the original causative organism, usually the gonococcus, may have long since disappeared (and hence be incapable of demonstration); however, the secondary infections following the gonococcus are among the most stubborn with which we have to deal.

Whenever a diagnosis of chronic posterior urethritis is made or suspected, the examination of the prostate and its secretion becomes most necessary. In the vast majority of such cases the seat of the infection will be found in a chronic prostatitis.

In Thomas and Birdsall's series of 878 cases of chronic gonorrhea, 871 or 99 per cent were shown to have a chronic prostatitis—however, a relatively small proportion of uncomplicated chronic prostatic infections are accompanied by pyuria. Horwitz and Von Lackman reported an incidence of pyuria in only 11 per cent of their series of 500 cases. The diagnosis of chronic prostatitis is made by microscopic examination of the secretion obtained by massage of the gland. A count of more than 2-4 white blood cells per high power field may be considered pathologic. The count may be normal at the first, or even at the second examination, the pathologic condition manifesting itself only at the second or third examination. The impressions

obtained by palpating the gland are largely unreliable, although a soft, boggy, slightly enlarged prostate will usually be found to contain pus. Pus may also be found in the secretion of a prostate in which adenomatous changes are taking place. The diagnosis of chronic prostatitis is never complete without a culture of the expressed secretion with identification of the causative organism. Examination for tubercle bacilli by smears and guinea pig inoculation is indicated in those cases in which the possibility of tuberculosis infection is suggested by the history or general physical examination. The suspicion of the tuberculous infection is enhanced by negative cultures on ordinary media. The finding of thickened or indurated seminal vesicles with a soft boggy prostate may also be suggestive.

Acute prostatitis usually is the result of the spread of an acute urethritis. The gland is swollen, quite firm and exquisitely tender. Further extension of the process leads to abscess formation.

Both acute and chronic prostatitis are frequently accompanied by similar processes in the seminal vesicals. So true is this that one often employs the term vesiculo-prostatitis. The diagnosis of seminal vesiculitis, like that of prostatitis, depends upon the finding of pus in the expressed secretion. This is not always an easy matter. The prostate may first be massaged while the patient's bladder is distended, urination then washing out the prostatic secretion from the urethra, after which the vesicles are stripped and their contents examined.

Chronic prostatitis should be considered as a focus of infection, upon an equal footing with the foci in the teeth, tonsils and sinuses, and should not be ignored as is too often done in routine search for focal infection.

Chronic urethral infections are frequently maintained by strictures and their presence should be sought for by the passage of urethral instruments.

Having once ascertained that the source of a given pyuria is above the vesical neck, our procedure in the two sexes is identical. In such cases the cystoscope and urethral catheter are of inestimable value. To quote Walbarst, "A diagnosis of pyuria of urinary ori-

gin, made without the cystoscope, would be equivalent in value to a diagnosis of optic atrophy made without the ophthalmoscope."

In the bladder the principal causes of pyuria are cystitis (acute or chronic), stone, tumor, diverticulum, foreign bodies, obstruction below, and retention from whatever cause. In most of these conditions the cystoscopic picture is characteristic.

Cystitis is rarely primary, but is practically always secondary to some form of obstruction below or to infection higher up in the urinary tract, or to some infectious process in some more or less remote part of the body. Hence, the diagnosis of cystitis is, in most instances, essentially incomplete. It is of little avail to treat a cystitis that is due to obstruction to the vesical neck, or that is kept alive by an infected kidney. Whenever cystitis is encountered, a thorough search must be made for the cause of the condition and our attack directed against the cause.

We have come to realize that obstruction of the vesical neck may occur at any age. We now recognize congenital contractions of infants and children, median bars, prostatic adenoma and enlargement of the glands of Albarrans in adult life. The diagnosis of prostatic adenoma is made principally by rectal palpation, but the cystoscope reveals the amount of intra-vesical and intra-urethral encroachment. In the vesical neck contractions and median bar formations, the cystoscopic picture is quite characteristic.

Many vesical infections are found to be the direct result of urethral obstruction. Whether this obstruction be due to stricture, polyps, calculi, or intra-urethral prostatic enlargement; the mechanism and the resulting pathology are the same. The discovery and proper treatment of such conditions will most often relieve the cystitis. The congenital valvular formations occasionally seen in children should likewise be kept in mind.

Vesical calculus may be accompanied by any degree of cystitis. If the possibility of stone is kept in mind, it is not likely to be overlooked by the cystoscopist. The formation of stone is favored by stagnation of the urine with its inevitable infection—thus here too, the problem of obstruction enters. The greater majority of vesical calculi have their

origin in the upper tract and a complete study should be made to determine whether there are stones in the kidney pelvis or ureter, and if possible, the primary cause of the calculus disease.

Bladder tumors, whether benign or malignant often acquire more or less of an inflammatory character and are accompanied by pyuria. The (trained) cystoscopist can hardly fail to see the tumor, though he may err in his decision as to the presence of malignancy.

Another frequent source of vesical pyuria is diverticulum, either multiple or single. Here again obstruction at or below the vesical neck is often associated, though many diverticula are doubtless of congenital origin. Whatever the cause of the diverticulum, it is often poorly drained and susceptible to infection.

Whenever one encounters a persistent pyuria with retention of urine in the bladder, he should think of the so-called "cord-bladder" and his examination should include that of the peripheral reflexes. This is particularly true when there is no demonstrable anatomic obstruction to account for the retention.

Among less common causes of vesical pyuria may be mentioned foreign bodies and appendiceal or tubo-ovarian abscesses which have ruptured into the bladder.

Eighty-five per cent of renal infections are caused by the colon bacillus—the remainder are caused chiefly by the pyogenic cocci and the tubercle bacillus. Mixed infections are common. The commonest mode of infection is by means of an initial parenchymal inflammation through bacteria derived from the blood stream. These bacteria may have had their origin in any infected focus, e.g., teeth tonsils, intestinal tract, prostate or bladder, whence they enter the blood stream to be excreted through the kidney. This initial lesion may be so small and transitory as to be incapable of detection, giving rise to a bacteriuria without apparent renal infection. Although inflammatory or neurologic lesions may result in a wide open ureteral orifice with ureteral reflux, it is doubtful whether infections ascend along the lumen of the ureter. Most ascending infections occur by way of the ureteral lymphatics which

have been demonstrated to anastomose freely throughout its extent. Retention of urine is the most frequent accessory cause of renal infection. Whether this be due to obstruction of the ureter at the vesical neck or in the urethra, the mechanism is essentially the same. Retention of urine causes congestion of all parts of the urinary tract above the obstruction responsible for the retention, thus creating a favorable soil for the growth of bacteria. The obstructions of the urethra and vesical neck have already been mentioned. More will be said later about the ureteral obstructions, the more common of which are strictures, stones, blood clots, and kinking due to ptosis of a movable kidney. Less common causes are tumors of the ureter and pressure upon the ureter from without by new growths or pregnancy. Trauma is another accessory cause of renal infection, any traumatized tissue being fertile soil for bacterial growth. Certain toxic factors may also exert an influence.

The complete diagnosis of renal infection includes isolation of the organism, localization of its source, determination of the accessory causes of the infection, estimation of renal function, the elimination of stones, cystitis, prostatitis, as concomitant lesions and elimination of tuberculosis. It also includes a determination of the gross changes of kidney, pelvis, and ureter, as inferred from the urogram.

The existence of ureteral strictures is now an accepted fact, though their occurrence is probably much more infrequent than has been supposed. Hunner's definition is as follows:

"Ureteral stricture is an intrinsic disease of the ureteral wall, resulting in narrowing of the lumen, and giving rise to varying degrees of stasis in the urinary stream."

The presence of strictures is diagnosed by the characteristic hang of a bulb fixed upon a ureteral catheter. The hang is obtained upon withdrawal of the catheter and occurs as the bulb is passing the narrowed area. If bulbs of increasing size always hang at the same place, the diagnosis of stricture is relatively certain. The urogram will most frequently confirm the opinion.

Calculus of the ureter or kidney pelvis is diagnosed through co-operation of urologist and roentgenologist. Suspicious shadows on the flat plate which appear to lie in the region of the pelvis or ureter require further investigation. Occasionally the ureteral orifice will appear inflamed or edematous. There may be a visible bulging due to a calculus lodged in the intravesical portion of the ureter. The ureter catheter may be obstructed at the level of the suspicious shadows. Much may be inferred from the relation of the shadow to that cast by the opaque catheter. The most reliable means of localizing the shadow within the ureter is the ureterogram. The shadow of the calculus will be included within the shadow of the ureter. There may be nodular dilatation at the site of stone. When the ureter is obstructed by the stone there will be dilatation of ureter and pelvis above the stone. When the catheter fails to pass the stone there is absence of opaque medium above the stone. Very small stones or radio-translucent stones which escape detection by the roentgenogram can often be detected by means of a wax-tipped catheter which exhibits scratches from contact with the rough surface of the stone.

Suspicious shadows in the region of the kidney may be confirmed by means of pyelography. Shadows cast by stones in the kidney pelvis lie within the shadow of the pelvis. The pyelogram reveals greater or less dilatation of pelvis and calices, due to obstruction or to inflammatory changes or both. Inflammatory dilatation is more apt to involve the ureter and may predominate there. Any shadow more than 4 cm. from the pelvis outline is probably extra-renal. Stones which do not cast a shadow may sometimes be recognized by an apparent filling defect in the pyelogram.

Septic infarcts, cortical abscess not communicating with the pelvis, and perinephritis do not cause pyuria and will not be considered here.

Acute pyelitis does not occur without suppurative nephritis any more than does acute suppurative nephritis without pyelitis, but in a pyelitis the inflammatory lesions in the kidney pelvis predominate, therefore, this condition is usually considered as a pyelo-

nephritis, because, by the time the acute febrile symptoms develop, the inflammation has extended to the kidney substance.

The symptomatology of a typical pyelitis before extension has taken place is that of a mild pyelonephritis or there possibly may be no symptoms referable to the kidney at all.

Acute pyelonephritis is characterized by fever, tenderness and enlargement of the kidney. The infection should be considered as bilateral until the ureter catheter proves it otherwise. It is well to remember that existing suppuration may be aggravated by ureter catheterization, except in those cases where ureteral obstruction is an accessory cause of the infection. Pyelography should not be done.

Chronic pyelonephritis is readily diagnosed. The ureteral orifice usually appears normal but the urine from the affected kidney contains albumin and pus and renal function may be diminished. Pyelography demonstrates more or less dilatation and clubbing of the calices. The diagnosis must, of course, include that of the accessory cause.

The diagnosis of pyonephrosis is likewise relatively simple. The kidney is enlarged and sensitive. The cystoscope reveals a dilated and distorted ureteral orifice, from which thick creamy pus may be exuding. If the pyonephrosis is closed by ureteral occlusion, the ureteral catheter will be obstructed and no pus will be seen, though the opposite kidney will usually show some infection, doubtless the result of toxic accessory causes. The function of a pyonephrotic kidney is practically nil. The pyelo-ureterogram reveals the extent of the destruction, as well as the presence of such associated conditions as stone or stricture.

Tuberculosis of the bladder was not discussed along with other bladder lesions, but reserved for this time because of the frequency with which bladder and renal tuberculosis occur together.

Braasch states that the bladder becomes involved in 30 per cent of the cases of renal tuberculosis. Thomas Claims 75 per cent. The cystoscope is by far the most important means for the diagnosis and localization of urinary tuberculosis, being at least upon a par with the laboratory. Pyuria accompanied

by a negative culture on ordinary media calls for further investigation with tuberculosis in mind. Smears should be made, also guinea pig inoculation by one of the various methods. Whatever the technic used, the bacillus is incapable of demonstration in perhaps 15 per cent of cases. Our investigation should not stop here. The expert cystoscopist can probably diagnose the condition as frequently as the laboratory.

During the early stages of the disease the bladder lesions are quite inconspicuous. Later, there may be ulceration or bullous edema about the orifice of the affected side, extending on to the trigone and sometimes even surrounding the orifice of the normal side. There may be an acute generalized cystitis. As the submucosa becomes infiltrated by the infection the ureteral orifice becomes rigid, enlarged and retracted. In the final stage all bladder landmarks are obliterated, the entire wall of the bladder being covered with deeply ulcerated areas covered with plastic exudate or calcareous deposits.

The ureter may become completely occluded by semi-solid casts of pus or by stricture formation, leading to closed pyonephrosis. Atrophy of the orifice occurs and there is neither pus or bacilli in the urine. The use of indigo carmine is a valuable aid in detecting early lesions, since comparatively small lesions often cause marked diminution in the function of the affected kidney. Since early tuberculosis is practically always unilateral and curable by nephrectomy, this is of utmost importance. Marked diminution of function on the supposedly sound side contra-indicates nephrectomy.

I close with a plea that cases presenting pyuria be subjected to thorough urologic study, bearing in mind that the severity of the pyuria is in no way a measure of the gravity of the underlying condition. If some such scheme of thought and procedure as that presented above is followed, the source of practically every pyuria can be determined. The prostate should not be forgotten in a search for focal infection.

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TREATMENT OF SYPHILIS*

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There has been so much said and written concerning the treatment of syphilis that the general practitioner who wishes to be fair to his patient, his profession, and himself, is often at a loss to know exactly what line to pursue in handling such cases. The desire to be honest with the patient and give him the benefit of varying knowledge gleaned from the different clinics and the large volume of literature on the subject of the treatment of syphilis exhibited in the medical journals, has a tendency to confuse the conscientious doctor.

There is no disease in which more harm can be done, should it be handled in a careless manner. By this I mean, not making every effort to reach a correct diagnosis, and, to my mind, it is criminal to tell a patient he has this disease when there is a shadow of doubt in your mind. Also I consider it malpractice to give indifferent treatment, that is, to administer just enough medicine to control the objective symptoms and then allow the patient to believe he is cured.

Now, let me enumerate the classes or types of syphilitic patients who consult you. First, the intelligent: It is a pleasure to treat them for they know just enough about the disease to have an idea of its seriousness and will cooperate with you in every way to rid themselves of it.

Next, the ignorant: It is this class we must take time to educate and inform, to a degree, so they will take their treatment properly and allow themselves to be kept under observation the proper length of time.

Then we have the reckless or those who are inclined to belittle their trouble. It is this

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class that wants only to be freed from the objective symptoms as the condition inconveniences them. This patient will discontinue treatment as soon as the lesions for which they consulted you have disappeared, or, if latent, cease to bother them.

Next, we have those who are inclined to exaggerate their condition, the over-anxious, the morbid. It is well that we allow them to be greatly concerned, but not to the extent that will affect their general health.

Then we have those who think they know all about the disease and are inclined to dictate treatment. This is the hardest type we have to come in contact with, and requires great patience on the part of the physician.

Then we have those who present themselves with no idea that they have syphilis or have ever had it. They consult you on account of some obscure symptom entirely disassociated in their own mind with a syphilitic condition. It is generally in a latent form and we discover it in our routine examination and blood test. If this patient happens to be a lady and in the higher walks of life, I sometimes treat her for the disease without giving my diagnosis. This of course should not be the rule, but in some cases the knowledge of the exact nature of the disease would produce certain social and domestic complications, and I believe at times we are justified in keeping the patient in ignorance. This should only be done in cases where there is no danger of spreading infection.

We have two therapeutic means at our command. First, the utilization of all the body's natural forces and means of combating the disease; and, second, drugs or artificial curative agents. The first, of course, means to instruct in hygiene and, as best we can, regulate the habits and mode of living—especially caution them as to the avoidance of excesses, etc.

The drugs we use are arsenic, mercury, bismuth, iodine, and reconstituent tonics containing iron.

The treatment of syphilis is of course elastic in its nature—what would be correct for one patient may not be for another. It is very hard to standardize the treatment, but there are certain rules and general outline we may suggest.

The first thing we must remember is that the different stages of acquired syphilis need different degrees of treatment. In primary and very early secondary, the treatment in the beginning should be intense. Our hope is to cut the progress of the disease short; that is, to check the advance or progress of the infection. I believe it is possible to abort the disease if we give this intensive treatment before the blood Wassermann reaction becomes positive.

Early administration of the proper drugs, within a week or ten days after the chancre appears is called the "Golden Period" for treating this disease and the honest physician will make every effort to establish his diagnosis should he be consulted concerning a suspicious venereal ulcer. If he is not prepared to do a dark field, the patient should be referred to a laboratory or to some one who can make the necessary diagnosis.

Arsphenamine (arsenic) is by far the drug of choice in treatment of early syphilis. It has stronger spirocheticidal properties than the others and acts quicker.

In very early cases, and I mean by this, primary (that is, when the blood Wassermann is negative), I advise four doses given four days apart and then four to six given one week apart. Then begin immediately with mercury or bismuth. Should we desire to use mercury, it should be given once weekly; if we elect to give bismuth it may be given twice weekly. At least ten to fifteen doses should be given and both drugs are administered intramuscularly. At this time we hope, but there is no way for us to prove to ourselves, that the patient is cured, however we give them fifteen to thirty days rest from the injections and administer an iron tonic. At this time, that is, after a rest, we renew the medication which consists of a monthly dose of arsenic for three months and the weeks we do not give the arsphenamine, we give mercury once a week or bismuth twice a week. At this time we are reasonably sure that our patient is free from infection. However we request their return every three to six months, for examination and provocative Wassermann test. It is also well to have a spinal fluid Wassermann test

if there is the slightest symptom of neurosyphilis.

Now should a patient appear in the secondary stage—that is, when the Wassermann is positive and we have other clinical symptoms, such as adenitis, skin eruptions, and mucous patches, we do not give so intensive a treatment in the beginning. A weekly dose of arsphenamine is administered for eight weeks, then a course of mercury or bismuth as in the primary stage, and after two to four weeks' rest we repeat the course of arsenic and mercury or bismuth just as we did for the primary stage.

A Wassermann is taken from time to time as a check on treatment and the number of courses we give in this stage is governed by the serologic findings and clinical symptoms. However, the course as described above should be repeated for at least a period of two years with intervals of rest.

Just here, let me state that when we give these rest periods it is well to give iron by mouth. A most important factor in the handling of these cases is to keep the hemoglobin up to par during the course of the disease, and should we fail in this, our results will not be satisfactory.

I believe that syphilis in the first two stages is a curable disease and we should think, feel and teach, that it is. And just here is where improper treatment and management of a case may allow that patient to reach the tertiary or great death-dealing stage of the disease.

The treatment of the third (tertiary) stage of syphilis should be approached very cautiously. It is here that zealous treatment, such as described for the primary and secondary stages, will often be harmful and at times prove fatal. Sometimes in selected cases I think the old mixed treatment, given by mouth, we were taught to give for latent, tertiary syphilis, is as good if not better, and I am sure safer than plunging into a course of intravenous medication. If a patient has lived long enough to have this type of the disease, the body has built up a fighting principle consisting of antibodies and the debilitating effect of intensive medication will cause the balance, which has been established to break and in addition it will cause a rapid

liberation of spirochetes and toxic products that are at times, with patients weakened condition, hard to combat. In the past, mercury and iodine have been our principal aids in the tertiary stage, but for the past few years, bismuth has become a competitor of mercury and I believe that the time will come, when it will almost surplant mercury in the average case at this stage of the disease.

Please do not understand me to say that arsenic has no place in the treatment of tertiary syphilis. There are certain destructive lesions and especially those of central nervous system in which it should be used, and I might say intensively at times, but with great caution, and watching the result of each dose with great care.

Iodine is of no importance in primary and very early secondary syphilis, but, though not a spirocheticide, is a great aid in treating late secondary and tertiary and should be considered essential in these stages.

All serious lesions of congenital syphilis are similar to those of acquired tertiary and should be treated in the same manner.

Time will not permit me to discuss the treatment of neurosyphilis except to state that when it occurs, and at times it does, in the secondary stage, it affects only the meninges and responds most readily to the ordinary treatment of the secondary stage which is described elsewhere in the paper. There is no satisfactory treatment for neurosyphilis in the tertiary stage. That is, it is seldom, if ever, cured. The weekly administration of from one to three grams of typarsamide intravenously (provided the eye field is clear) is of great benefit in many cases.

The inoculation with malaria and the administration of vaccines or other substances to produce high temperature has been advocated to ameliorate the symptoms and prevent the advance of tissue destruction in paresis and other types of neurosyphilis. I do not believe we will be able to do much with these cases until we can say exactly what temperature will kill the spirochete while active in the living tissue, and until science devises some means of applying this heat through the body without detrimental effect. General Electric is experimenting along this line with rabbits.

Before closing allow me to suggest a few things we must not forget:

We may have a negative Wassermann reaction of both the blood and spinal fluid and yet have syphilis; we may have a negative blood Wassermann reaction and positive spinal fluid reaction indicating neurosyphilis; we may have a mildly positive blood Wassermann reaction and not have syphilis; it is important to make a provocative Wassermann test, should the blood show negative in cases that have not been treated for several months; in so-called Wassermann-fast cases with no clinical symptoms where the patient has had the usual two years' treatment we should assume that infection continues to exist and give the patient a short course of treatment once a year for an indefinite number of years. Lastly, we must remember that syphilis at times is a mysterious disease and a great imitator of other pathologic conditions.

Discussion on Papers of Doctors, Ballenger, Upchurch, and Emery.

Dr. Earl H. Floyd, Atlanta, Ga.—I am sure we have all enjoyed this very entertaining symposium. As to iopax, it seems to be of very definite value in certain cases, as stated by the essayists in their excellent paper. Particularly is this true in children, in bringing to light certain anomalies which might go undiagnosed, and in adults in cases of transplanted ureter and so on.

I heard Professor von Lichtenberg read his paper on this subject last June and was much impressed. He stated that in his experience, minor disturbances of the kidneys could not be evaluated by intravenous injections of uroselectan. One might expect a good picture only when the kidney function is satisfactory. Very soon after hearing that report we began the use of iopax in the Grady Hospital, and have used it with varying success. In some cases we have obtained valuable information, such as hydronephrosis, horseshoe kidney and so on, but in other instances we have been unsuccessful in obtaining information. One such instance was in a case of ruptured kidney. In that case there was a tear through the upper pole which extended into the calix. We were unable to determine any deformity of the kidney six months after operation with intravenous pyelography; whereas, with instrumental pyelography the superior calix was plainly missing. In another patient with a retroperitoneal tumor (which was found at operation later unattached to the kidney), we were unable to get a shadow of the kidney on the side of the tumor with iopax and could very easily have been misled into diagnosing some sort of a kidney tumor, were it not for other

facts. This case taught us this lesson: not to rely on iopax alone in carrying out a surgical procedure on a patient, for if we had in this case we would have found a kidney practically normal. One must bear in mind that the absence of visible excretion of uroselectan does not mean the absence of function of that kidney. However, in a "dead" kidney one can be certain that iopax will not show on that side.

Doctor Upchurch has covered well a very big subject. Pus in the urine is undoubtedly significant, that is, if it is present to any appreciable extent. A few shreds in the first glass of urine may not have any special significance. They are occasionally found in men who have never had an infection to their knowledge, and even so, a long course of treatment is not indicated. It is a sign for interpretation.

It is with a thorough knowledge of the facts that he has brought out, that one can best locate the source of pyuria and treat it properly. The peculiar anatomy of the glands of the urethra, the prostate and seminal vesicles predispose them to frequent infection. One should always bear in mind the association between infection of the genito-urinary tract and that of infection elsewhere in the body. The association between tonsillar abscess and infections of the kidney is known to all of us; the clearing up of an infection following the removal of a bad tooth, which occasionally happens, is so miraculous that it always impresses us. But I believe stasis in the gastro-intestinal tract accounts for more cases of chronic pyuria, which do not clear up, than anything else. The lavaging of the renal pelvis time after time and time after time, for infection of the kidney is all wrong and if one would clear up infections elsewhere in the body and particularly the gastro-intestinal tract, I believe they would obtain better results than by so frequent lavage.

I enjoyed Doctor Emery's talk on syphilis as I always enjoy his talks. The course of treatment that he gives is an excellent one. We should always treat the general condition of the patient, watch his diet, treat any anemia that may be present, and help to build up the resistance of the individual.

Dr. William F. Reavis, Waycross, Ga.—The subjects discussed in this symposium are three of the most important subjects that urologists and general practitioners have to deal with. It has come to the point with the layman that he almost considers pus in the urine a disease. It is a symptom of a disease and, as Doctor Upchurch so well brought out, the determination of the cause and the care of the patient is very essential to the ultimate recovery.

The paper on uroselectan followed along the same course of procedure in determining pyuria. The two papers go hand in hand. The question of the patient being treated for pyuria alone, as is done in the State of Georgia today, is inexcusable.

Doctor Emery spoke of the treatment of syphilis, and the treatment that is going on in Georgia today is almost criminal. I think the treatment of pyuria is much the same. It is often true that urologists have

patients sent them with a diagnosis of pyelitis, who have been treated as such for months; and that they find after a careful examination that the lesion is in the lower tract.

Recently I saw a woman who was four months pregnant, with 4 plus pus. The nurse called my attention to the fact that the patient had a vaginal discharge. On examination I found that she did not have gonorrhea or pyelitis or anything but a great big chancre in the vulva, probably a mixed infection which I considered both chancroid and chancre. These things should be recognized by the general practitioner, and they should not wait to have the diagnosis made by a specialist. It is embarrassing to the specialist to find an error in diagnosis by the man who had referred a patient, as embarrassing as to make a mistake himself. I am not saying this as a criticism of general practitioners, for I was one for years, but I wish to stress these errors.

I think it is better to give syphilitic patients the benefit of over-treatment rather than to under-treat them. Doctor Emery ably brought out the different stages of the treatment of syphilis and we cannot improve on it, but in the early stages of syphilis many men are waiting today for a positive Wassermann reaction before they begin treatment. That will not occur, as a rule, before six weeks and if you wait that long to begin treatment you are certainly giving the patient a bad road up hill to get well. I hope you will all bear in mind what Doctor Emery said, give intensive treatment in the beginning as well as later. Stick to it, and the mere fact that you get a reaction from the arsphenamine does not mean that you cannot treat the patient. You can give arsenic again if you handle it carefully, and if not you can use bismuth and get satisfactory clinical as well as serologic results.

Dr. Stephen T. Brown, Atlanta, Ga.—In discussing the paper of Doctor Ballenger on the use of iopax, there are one or two points I have found worth while. If the kidney is a good functioning one, then the first picture or series of pictures should be taken earlier than at intervals of fifteen, forty-five, one hour and fifteen minutes. The dissemination of the drug will give a quicker outline of the kidney than in cases where the function is low. If the function is slow, then the pictures should be taken relatively later. In cases of normally functioning kidneys, these pictures will show up clear if there is some form of obstruction, such as an abdominal bandage which is used in the form of a binder to prevent the drainage. If a lesion or obstruction in the lower urinary tract is suspected, it is better to have the bladder empty before the picture is made. In my opinion, the use of iopax is of more value in cases of acute obstruction in the urinary tract before the function of the kidney has ceased, such as acute obstruction from stone.

In Doctor Upchurch's paper, which is very important, one of the most important things to remember is to determine where the pus is coming from, whether from the external genitalia or from the glans, urethra,

prostate and so on, or whether it is coming from above. It is always important to study these cases very closely, and to make several smears before it is determined that the pus is not coming from the lower area. When it is determined that it is coming from the upper tract, a cystoscopic examination with complete study is necessary.

In Doctor Emery's paper, I agree that too much stress cannot be laid upon treatment in the early stages, but it is just as important to watch the kidney function in the early cases as in the latent. The latent cases with no clinical symptoms, I think will get along just as well if we leave off treatment entirely, but in the latent cases with symptoms I believe it is well to treat the patients gently with our old mixed treatment, and use very small doses of neo-arsphenamine in well-selected cases.

Dr. S. T. R. Revell, Louisville, Ga.—Doctor Emery's paper was the first one of this symposium that I heard, but I listened to it with great pleasure and profit. I have had the pleasure, once in my life, of hearing an original contribution. It was by Doctor Warthin of the University of Michigan, and he delivered it in Atlanta, some years ago, before the Clinical Congress of North America. His thesis was on syphilis, and he had come to the conclusion that a man who is once syphilitic, is always a syphilitic; certainly so, if the disease ever reaches the secondary stage. Despite the fact of a negative blood Wassermann reaction, a negative spinal fluid and all the other tests that are now known to the profession, he believed this true.

I have one suggestion to bring before this body. I have seen with a colleague, one case of tertiary syphilis, in a negress, to whom he had given one dose of sulpharsphenamine in the gluteus maximus. Some weeks later she broke out with an extensive rash, which finally covered the surface of her body. Some four to six weeks later her sclerae became icteric, her liver increased in size, asthenia progressed and the patient went the way of all cases of acute yellow atrophy. At post-mortem it was found that she had died of acute yellow atrophy, presumably due to the arsenic.

The reading I have done recently would cause me to pause before giving too much arsenic. I know that millions and millions of doses of arsenic have been given without deleterious effects, and with benefit to the patients, but it is well to bear in mind if only for the purpose of not making too favorable a prognosis when using the arsenicals as therapeutic agents, that a patient may develop an acute yellow atrophy. I know this is said to be due to the plugging of the vascular tree in the liver with spirochetes and that it is syphilitic infection, rather than acute yellow atrophy, but I think we should keep in mind the end result and not be over-zealous in the use of the arsenicals.

Dr. George L. Echols, Milledgeville, Ga.—I wish to emphasize the psychiatric side of Doctor Emery's subject. I have had occasion to make numerous studies

in mental disease. The commitments to the state hospital vary, but those sent because of venereal infections account for about 10 per cent of the patients. At the institution at Milledgeville, I have had occasion to study this matter and have written several papers. In one of them several years ago I estimated that 6 per cent of the commitments were due to syphilis. I feel now that my estimate was low. There are many pitfalls in regard to these conditions, with which I judge you are all familiar. You may get a negative spinal fluid and think the patient is improved. We have taken many of these patients and put them on rest and a good diet, and the spinal fluid has become negative. I have had cases in which the doctor has treated the neuro-syphilis, and the patient improved and recovered, but later on had a relapse and went down and down. In my long personal experience and in observing the work done in other places, I have been impressed in regard to the extreme disappointments we encounter in attempting to treat these neuro-syphilitic conditions. I wish some individuals who are operating syphilitic clinics would take up the study of the spinal fluid in the early stages, in the secondary stage, and see exactly how early it becomes involved. I think we need to know what happens in the early stages of the infection, for if we can accomplish anything in the treatment of these individuals it must be in the beginning. Our later attempts have been very unsatisfactory.

Dr. Ross Brown, Chicago, Ill.—There is one thing I would like to bring out regarding the use of iopax. I do not know whether it has been used here as much as we have used it, but the principal advantage I think it has is that in injecting it just as you would sodium iodide you do not get any reaction. It is nonirritating and does not produce the after-effects that we get from sodium iodide. We have, in the last six or eight months, not used sodium iodide at all and we have not had the severe reactions following the pyelographic injections.

Doctor Upchurch mentioned the use of sodium iodide in hydronephrosis. I think in these cases we can use the iopax with better results, for there is no noticeable reaction afterward.

Dr. Edgar G. Ballenger, Atlanta, Ga. (closing)—I think there is very little more to say regarding iopax. In it we have a valuable agent to assist in our urologic diagnoses, rather than something that can supplant the usual things we are called upon to do to find the source and cause of pus and blood so often associated with genito-urinary lesions. Used with intelligence and discrimination, and interpreted with reasonable care, uroselectan will often assist in making a definite diagnosis with a minimum amount of cystoscopic work. We have no single rule that can be relied upon implicitly. Intelligent treatment, however, cannot be administered unless the cause of pus and blood are known. Iopax often renders cystoscopy unnecessary

and, when required, the preliminary films may afford sufficient data to permit the urologist to work with a definite purpose in mind.

Dr. W. A. Upchurch, Atlanta, Ga. (closing)—I will simply thank the gentlemen for their discussion.

Dr. W. B. Emery, Atlanta, Ga. (closing)—I also am much gratified at the discussion. When it comes from men like Doctor Echols, showing the end-results, one might say, of neglected syphilis, where four to five thousand individuals are confined and 10 per cent of them suffer with this disease and the results of it, certainly it is appalling. A large per cent of this 10 per cent could have been avoided if these patients had received the proper treatment in the primary or early secondary stages of the disease.

I was much interested in the remarks of Doctor Revell, bringing out the findings of Professor Warthin in regard to the incurability of tertiary syphilis. A great many of Doctor Warthin's necropsies were most likely done on a lower class of syphilitics or those who had neglected treatment in the early stages of the disease. We must not let these pessimistic conclusions of this great pathologist discourage us, but continue to give early and thorough treatment, believing that in many cases the disease is curable. Suppose at necropsy we do find lesions of syphilis, if the patient has lived to be fifty to sixty years of age it makes very little difference. We know we find lesions of tuberculosis in many who die of other diseases than tuberculosis, and the same is true of syphilis.

I thought very likely the subject of continued intensive treatment, without the rest interval, would be brought up. Much has been written and said recently on the subject of continuous treatment and I know several of my colleagues insist that we should not give the patients the short periods of rest after a course of treatment. Doctor Upchurch is rather decided on this point and quotes several authorities. What I have said to you this morning is the result of my experience. I have had opportunity to study this question, and my conclusions are the result of seeing, studying, and treating many cases of syphilis. If we give continued and rather intensive treatment beginning in the primary or secondary stages for a year or two we are not treating our patients, but the disease, and you will find that after 4 to 6 months of treatment, many patients will become anemic and debilitated. These drugs we use are irritating to the organs of the body and anemia soon begins to appear.

I see no use of curing a man of syphilis and injuring him with medicine.

Another thing is that these patients get mentally sick and reach a point where they feel that they would almost rather have syphilis than another injection, especially in the gluteal region. The short rest period after a course of treatment enables us to give reconstituent tonics, especially iron. I do not believe I have ever cured a patient of syphilis who was anemic.

LAMINECTOMY IN SPINAL INJURIES*

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In spinal injuries, laminectomy is indicated where there is a possibility of restoration of function to a physiologically altered spinal cord. The underlying principle of the operation is the release of pressure. This pressure is usually outside the dura and due to bony fragments, either from the body of the vertebra or, most commonly, from the lateral or posterior processes. In other instances vertebral displacement may be the compressing factor. Extra, or intradural hemorrhage in reparable cord injuries is exceedingly rare. In order to establish the possibility of restoration of function, each suspected case of spinal injury should have a thorough neurological examination, a detailed examination of good roentgenograms, and a spinal puncture with fluid pressure reading. This spinal fluid pressure should be recorded first without and then with jugular vein compression. Before detailing the advantages and necessity of these procedures in establishing whether or not laminectomy should be done, a few remarks may be cast concerning spinal injuries in general.

Approximately one-third of the injuries to the spinal column show evidence of nerve tissue damage. Although the severe injuries are usually the result of indirect violence, direct blows do occur, and most often, anatomically speaking, the more exposed areas are injured, namely, the cervical and lumbar regions. Automobile and industrial accidents account for the greatest number of spinal injuries. That the cervical and lumbar regions should be the most frequent sites of trauma is due to the fact that here the relatively mobile spines are in juncture with the relatively fixed ones. The upper lumbar region is more vulnerable than the cervical in that the flexibility of the cervical vertebrae permits wider excursion of motion. The contents within the lumbar canal are more compact and vertebral flexibility is less, so that en-

croachment on the canal lumen here by displacement or from indriven fragments is more likely than in the cervical region. However, injuries in the cervical region are attended by a higher mortality. The mechanism of spinal fractures is of academic and medico-legal interest and has been expertly detailed by Jefferson in articles on this subject.

In examining a suspected spinal cord injury, attention should be directed to sensation, motor function, sphincter control, and reflex activity. In testing for any possible damage to the sensory apparatus, one should test for light touch (tactile sensibility), sensibility to pain (pin prick), temperature sense (ability to distinguish between cold and warm), and deep sensibility or the centrepetal impulses arising from tendons, muscles, joints, etc., which impulses invoke in the consciousness the sense of position of the extremities. Under this last grouping is included the vibratory sense or the ability to recognize tuning fork vibrations when such a fork is placed on the more superficial bony prominences. The segmental distribution of spinal nerves has been so well established that an accurate localization from sensory changes is not only possible, but with the completed neurological examination, the amount of cord damage can be more accurately estimated. For example, in a case exhibiting bilateral pain and temperature changes below the upper thoracic region without a corresponding degree of impairment in light touch, one could safely venture a centralized hemorrhage in the cord. The Brown-Sequard symptom complex, namely, the half-cord phenomena, is a familiar illustration. With the hemi-section of the spinal cord there is a disturbed sense of position with an over sensitiveness for light touch on the side of the lesion, while on the side opposite the lesion there is an altered sensation to pain and temperature.

As for motor function the knowledge of peripheral nerve anatomy, the spinal root derivation of these nerves, and their muscular innervation, together with muscle actions, is absolutely essential. With this knowledge and the proper correlation with the sensory changes a more accurate idea of the damage

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to the spinal cord is to be had. For example, where there is an abolition of all sensory and motor impulses below the level of the injury, in the presence of a free spinal fluid circulation, no possible restoration of function can be offered by performing a laminectomy.

In regard to sphincter control, a transverse lesion of the cord removes the volitional influence and fecal as well as urinary retention sets in. Later there may be established the so-called autonomic bladder, purely a bladder which will empty itself reflexly. Should, however, there be a control of the bladder and rectal sphincter, with neurological evidence of cord damage, a more favorable outcome may be anticipated.

One or two points are to be borne in mind concerning reflex activities. Some years ago Bastian stated that in complete section of the cord all reflexes were permanently abolished below the level of the injury. It was brought out during the recent war that as early as three weeks after the injury there may be a return of deep reflexes, provided there has been no gross lesion of the lower part of the cord. For a working basis the simple rule stated by Bing can be followed, namely, that lesions of the anterior and posterior root systems cause diminution or abolition of reflexes while lesions of the pyramidal system cause an increase of reflexes. The superficial reflexes are sensitive to injury to the pyramidal tracts.

X-ray studies are valuable in determining the bone pathology and also as a lead as to what may be encountered, anticipating an operation. Here, as in injuries to the brain, one should attempt to estimate the cord damage from the neurological examination rather than from bone changes if one is to operate for cord compression. Roentgenograms should be made in three planes, two lateral views and stereoscopic antero-posterior plates. The necessity of these three positions is easily understood when one realizes that a small bony change on one side may be overlooked if the lateral picture is made from the opposite side. Carefully studied stereoscopic antero-posterior plates will give an index of the fractured dislocated fragments or possible

vertebral body displacements that are most frequently the causes of cord compression.

Spinal puncture is of two-fold value. First, and insignificantly least, is the information obtained from the color of the spinal fluid. If the fluid is absolutely clear one can feel that the cord damage is probably much less than if the fluid is extremely bloody. Yellow cerebrospinal fluid usually denotes the presence of old blood. Again, one should bear in mind the estimation of cord damage from the neurological findings in examining the fluid color changes. Secondly, spinal puncture is of value in determining the presence or absence of a block in the spinal canal. Queckenstedt, interested in the relation of jugular compression in causing an increase in the intracranial pressure, showed that such venous compression was revealed by an increase in the pressure of the spinal fluid in the lumbar sac. Ayer, of Boston, popularized this maneuver in applying it to various spinal cord lesions. When a spinal puncture is done, an immediate pressure reading is made, either by a mercury manometer or with much less difficulty with a water manometer. The normal pressure is between one hundred and two hundred millimeters of cerebrospinal fluid. When the spinal puncture is done the initial pressure reading is recorded. Both jugular veins are then compressed. Normally, there is an immediate rise in the pressure, upon release of the jugular compression there should be a return to the initial pressure within the same period of time that the veins are compressed. In the presence of a completely blocked canal there is no rise in the spinal fluid pressure when the large neck veins are obliterated. Thus we have an absolute test in determining the presence or absence of a block in the spinal canal. Variations are possible, for instance, a rise in the fluid pressure on jugular compression with a failure of the fluid to return to the normal level upon release of the jugular compression is an index of partial canal obstruction. A slow steppage-like return to a new high level of the fluid pressure may be also taken as an indication of partial obstruction.

In order to emphasize the importance of a correlated neurological examination, x-ray

studies, and spinal fluid pressure readings, the following case is cited:

W. B., a youngster, was admitted to the Grady Hospital on August 8, 1930, some two hours after he had injured his back. He was unable to walk, inasmuch as there was only slight flexion of his right knee and some slight flexion and extension of the great toe of the left foot. Sensation to light touch below the first lumbar segment was absent and sensation to pin prick quite obtunded below this level. The deep reflexes were quite sluggish and no pathological reflexes were obtained. There was a paralysis of the rectal and bladder sphincters. X-ray plates revealed a crushed fracture of the posterior process of the first lumbar vertebra with backward displacement of the body of this vertebra. A spinal puncture was done between the third and fourth lumbar vertebrae. The fluid was clear at first and then blood tinged. When both jugular veins were compressed there was no rise in the cerebrospinal fluid pressure, which indicated a completely blocked spinal canal. A laminectomy was performed within twenty-four hours after the injury. The fractured posterior arch of the first lumbar vertebra was removed, the dura was opened, and the cord was found to be rather edematous but no demonstrable tear was seen. In order to prevent urinary infection a suprapubic cystostomy was done three weeks after the laminectomy. By November 15, 1930, the patient's sensation had returned to normal, all deep reflexes were normal, and with the return of sphincter control the suprapubic wound had healed, and the patient was able to walk out of the hospital.

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CERTAIN PHASES OF NEPHROSCLEROSIS IN CHILDHOOD

A. Graeme Mitchell and George M. Guest, Cincinnati (Jour. A. M. A., October 10., 1931), deal primarily with nephrosclerosis in childhood. In studying the etiology of this condition they found that there is a familial and an hereditary predisposition to it; that intra-uterine nephritis or nephritis in very early life may occur; that syphilis has little if any effect in causing chronic kidney disease in early life; that acute bacterial infections, especially of a streptococcic nature, may cause injury to the kidney resulting in chronic disease; that exogenous and endogenous poisons and toxins are seldom etiologic factors in nephrosclerosis in childhood; that focal infections seem to have little to do with chronic kidney disease in childhood; that high protein diets are not operative in producing nephritis in early life. None of the evidence warrants too great protein restriction in children suffering from chronic nephritis, but the better treatment consists in planning the diets to meet the usual normal requirements as far as possible. In the discussion of the symptomatology, especial mention is made of the peculiar bone changes which occasionally occur and of the undernutrition and dwarfism which is a common accompaniment of chronic kidney disease in childhood.

The authors point out certain directions in which further metabolic studies are needed.

CANCER OF THE STOMACH*

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Cancer of the stomach is the most frequent form of cancer in the human body. (1) Approximately thirty per cent of all cancers in civilized man are found in this organ. It is responsible for over thirty thousand deaths each year, in the United States alone, the majority of whom are beyond human aid when the nature of their trouble is first recognized. In 1915, Bloodgood (2) reviewed all the cases that had entered the Johns Hopkins and Saint Agnes Hospitals in Baltimore up to that time, and found that only two per cent of cancer of the stomach had been cured. In 1925, Eusterman (3) found that only half of the cases of cancer of the stomach entering the Mayo Clinic could be operated on, and of those who were operated on, the growth could be resected in forty-six per cent. Fifty-six per cent of those who had no glandular enlargement at the time of resection were alive at the end of three years, but only nineteen per cent of those showing glandular enlargement lived that long. These figures would indicate that the popular pessimism concerning cancer of the stomach is well founded.

Failure to cure more cases of cancer of the stomach is no fault of modern surgery. Any part, or all of the stomach can be successfully removed. Preoperative and postoperative factors of safety are well understood, and modern methods of inquiry make unnecessary operations rare. More cases of cancer of the stomach are being operated on each year, yet the per cent of the five-year cures remains the same.

The chief problem is earlier recognition of the disease. The usual text book picture of cancer of the stomach represents a terminal and utterly hopeless stage of the disease, yet it is one firmly fixed in the minds of the profession. My purpose in discussing this subject is to impress upon you that the *only hope* of improvement in the treatment of cancer of the stomach is training the medical profession to look for this disease, and educating the public to seek advice, where

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persistent symptoms of indigestion, or other unusual abdominal symptoms occur.

What is cancer of the stomach? Blood-good² defines it as "something that can be seen and felt in the wall of the stomach, somewhere between the pylorus and the junction of the oesophagus and cardiac end of the stomach". It begins as a local growth and in its early stages the peritoneal surface may show no change, while the mucus membrane may be ulcerated or show a papillary outgrowth. Microscopically, we find malignant epithelial cells so variably arranged as to be designated by the terms, adenocarcinoma, scirrus, medullary and colloid carcinoma. Later the growth becomes a hard irregular mass with an ulcerated surface. The edges of the ulcer are indurated and everted, while the floor is hard and uneven. In some cases the tumor forms a fungating mass projecting into the stomach without any demonstrable change in the peritoneal surface. Rarely, the stomach is small and contracted with hard thick infiltrated walls, producing the so called "leather bottle" stomach.

The etiology of cancer of the stomach is unknown. There is no definite proof that food, diet, smoking or chewing tobacco, drinking alcohol, or trauma has any definite relation to cancer of this organ. We know that chronic irritation is a factor in the production of cancer elsewhere. W. J. Mayo⁴ thought the theory that cancer of the stomach is the result of hot foods and drink which chronically irritate the gastric mucosa, worthy of consideration. Ochsner⁵ believed that cancer was caused by a specific living substance as well as chronic irritation, and that the eating of unclean food might have something to do with the development of gastric cancer. The most debated question in the etiology of cancer of the stomach is its relation to pre-existing gastric ulcer. Many patients with cancer of the stomach give a history of previous indigestion of several years standing and cases of early cancer often give a history indistinguishable from that of ulcer. We also know that cancer frequently develops in an ulcer, on the lip and tongue, for example. We must consider gastric ulcer as a precancerous lesion, if we are to *have any hope* of prophylactic treatment at all. The medical cure, or the surgical removal of gas-

tric ulcer is the only protection we now have against this disease. Gastric ulcer occurring in an individual over thirty-five years old, that does not give prompt clinical and X-ray evidence of healing on controlled diet should not be the subject of debate as to treatment, but should be widely excised. It is far safer to treat a gastric ulcer surgically than a gastric cancer medically. It is wiser also to treat any apparent ulcer associated with subacidity or anacidity as cancer. The importance of this view is illustrated in the following case.

Case 1: S. W. W., a 40-year-old white man, was seen February 22nd, 1928, because of persistent epigastric pain, made worse by eating and exercise, and because of a severe hemorrhage, presumably from his stomach. He stated that he had been going downhill for the past year and had been under the care of a doctor who made a provisional diagnosis of tuberculosis. An X-ray examination one year before disclosed no deformity of the stomach. He stated that in 1922 he had stomach trouble, described as gas on the stomach, but no pain. In 1925, he had a severe attack of epigastric pain with persistent vomiting for six days, and this was followed for some months by pain after eating. By living on milk, eggs and cereals for nine months, he apparently got well. At that time his stools were black and he vomited blood. In June, 1927, he began vomiting great quantities of blood and passed blood in his stools for six weeks. In July, 1927, he fainted while at work and passed tar-like stools for weeks. He has lost thirty pounds in the past year and is now quite exhausted.

Physical examination was negative except for a large filling defect about the center of the lesser curvature of the stomach. His sputum was negative for tubercle bacilli and X-ray examination of his chest was negative for tuberculosis. After four weeks' rest in bed and careful dieting, he still had epigastric pain and soreness. He was given a blood transfusion and operated on, a subtotal gastrectomy being done.

A lesion, two centimeters in diameter, presumably a gastric ulcer, was found on the posterior wall near the center of the lesser curvature. Convalescence was remarkably smooth and he left the hospital on the twelfth day. Examination of the specimen by Dr. Lee Howard showed it to be a small carcinoma of the stomach. This patient is still living and well, and has no symptoms from his stomach.

There is no proof that heredity plays any part in the etiology of cancer of the stomach, although certain families, particularly that of Napoleon, would lead one to think so.

Sixty per cent of cancer of the stomach is located in the pyloric region, twenty-five per cent on the lesser curvature and seven per cent in the cardiac portion. In eight per cent of

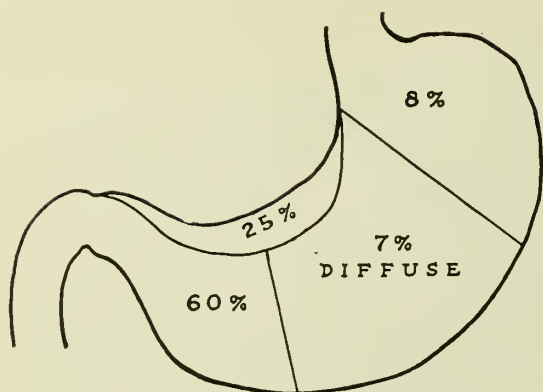


Figure 1
The relative percentage of the location of cancer of the stomach.

cases the organ is diffusely involved. The growth tends to spread from the pylorus along the lesser curvature and into the glands lying in the gastrohepatic omentum and about the celiac axis. If the growth is in the cardia the extension is downward into the glands about the hilus of the spleen. Growths on the greater curvature tend to spread toward the pylorus and into the gastrocolic omentum. Cancer cells may, also, be carried into the glands of the left side of the neck and supraclavicular region by the thoracic duct. Secondary growths are most frequently found in the liver, and less frequently in the pancreas, lungs and spleen. In advanced cases the aortic lymph glands, peritoneum, round ligaments of the liver, and even the abdominal wall may be extensively involved.

"The symptoms of cancer of the stomach are more diverse than that of any other disease of the stomach with the possible exception of syphilis." (Eusterman) The familiar picture of severe epigastric pain, great emaciation, coffee ground vomitus, palpable tumor and complete anacidity, represents an advanced and hopeless stage, yet it is the one by which cancer of the stomach is most frequently recognized. We must look for earlier signs. Unfortunately, there are none by which the disease can be diagnosed in its incipency. However, unexplained anaemia, loss of weight, dyspepsia, no matter how slight if persistent, vague abdominal distress or unexplainable nausea in a person in the cancer age, should suggest the possibility of cancer of the stomach. Often the history suggests gall bladder disease or duodenal

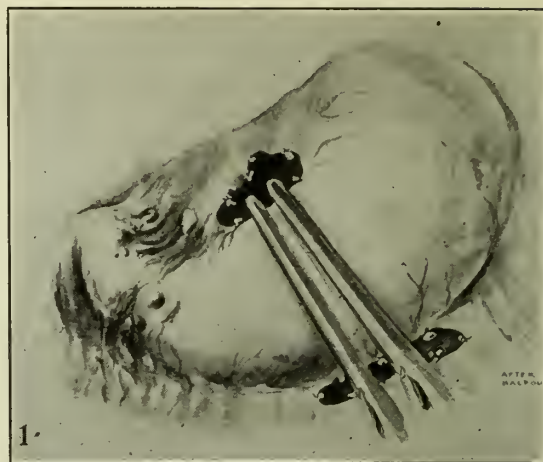


Figure 2
Resection is done by dividing the body of the stomach. The operation can then be completed in one or two stages, as seems advisable.

and may date back several years. Indeed, cancer of the stomach may cause sudden severe pain, simulating gallstone colic, as in the following case.

Case 2: Mrs. B. C. P., a white female, 46, was seen because of persistent vomiting and complete exhaustion. Her symptoms began definitely early in 1930, with attacks of severe epigastric pain coming on suddenly and radiating across the abdomen. The pain was relieved by morphine, but the attacks became more frequent and were associated with persistent indigestion between meals. She was told by a physician that the trouble was due to gall stones. Later the pain became more constant. The patient began vomiting in December, 1930, and she was not able to retain anything for a period of weeks. She then began taking something to induce vomiting to relieve the pain. When she first began vomiting the vomitus was dark in color, resembling coffee grounds. There was no history of vomiting bright blood. The patient had an X-ray examination of her stomach in January, 1931. An operation was advised but it was refused at that time. She began losing weight noticeably in October, 1930, and has lost forty or fifty pounds since that time. On April 14, 1931, an exploratory laparotomy for carcinoma of the stomach was done. A carcinoma, involving almost the entire stomach, was found and there was tremendous quantity of free fluid in the peritoneal cavity. Nothing could be done, but an enterostomy in the upper portion of the jejunum. The patient soon died from exhaustion.

There may be a definite sequence of symptoms, such as slight discomfort after eating, later definite pain, then loss of weight and strength. Rarely the condition may give no symptoms at all until some other organ is involved, as in the following case.

Case 3: Mr. A. P., a white male, 55 years old,



Figure 3

The anastomosis is first completed. The cancer bearing portion can then be dealt with or closed and removed at a later date.

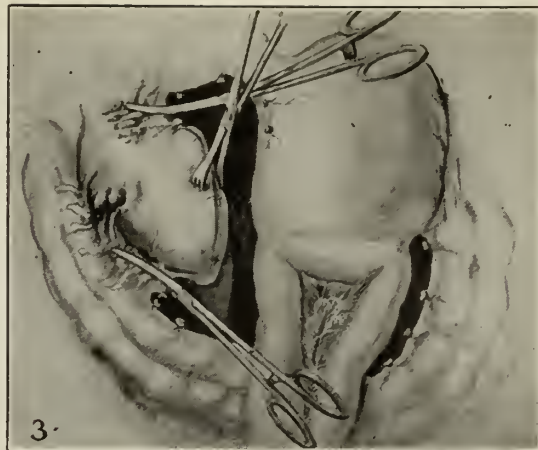


Figure 4

The cancer bearing portion is mobilized and removed at the second operation, the anastomosis having been completed at the first operation.

entered the hospital because of persistent vomiting and progressive loss of weight and strength. Until three or four months ago he had felt quite well. His symptoms began with vomiting, which had progressively grown worse. For the past two months he had been unable to eat anything. The vomitus was black and resembled coffee grounds, and he was obstinately constipated. Three months ago he was operated on and his umbilicus removed because of cancer in this region. The doctor told him that his stomach was normal at that time.

Physical examination was essentially negative, except for a small transverse scar in the center of his abdomen, and marked emaciation. An x-ray examination of the stomach disclosed a marked filling defect in the region of the pylorus. The pylorus was fixed and slightly tender. An exploratory operation, done after careful preparation, including a whole blood transfusion, revealed a huge carcinoma involving the pylorus, with nodules in the liver and enlarged aortic and celiac glands. The growth was adherent to the liver and pancreas. A long loop anterior gastroenterostomy was done. This failed to relieve the obstruction, and one week later the stomach was divided between the growth and the gastroenterostomy. The patient grew weaker and died after a few weeks.

The routine X-ray examination of the stomach in periodic health examinations and a search for the cause of every case of persistent indigestion, rather than a prescription for a powder or a tonic, is the most hopeful way of finding cases in a curable stage. The early recognition of cancer of the stomach rests upon the education of the public and profession to the necessity of looking for cancer of the stomach in every person of the cancer age, who has any unusual symptoms in the abdominal cavity. We must realize that

simple indigestion may be nature's first warning of a trouble that will soon be only too evident. When we get the same amount of information to the public and the profession on cancer of the stomach, as they now have on breast cancer, we will find the number of cures increasing.

An X-ray examination of the stomach will disclose a lesion in the great majority of cases, if cancer is present, but a negative plate does not positively exclude cancer as Saltzstein and Sandweiss⁶ have recently reported twenty fatal cases in which the roentgenologic diagnosis was misleading. Nor does the presence of free hydrochloric acid in the stomach contents exclude cancer as Balfour⁷ found it present in forty-three per cent of one thousand cases. Gross hemorrhage is not a frequent symptom of cancer of the stomach, but occult blood in the stools can be found in nearly every case. A careful clinical history, X-ray examination of the stomach, chemical analysis of the stomach contents, gastric lavage, and such laboratory work as is necessary to exclude other diseases in every case that shows the slightest suspicion of cancer will reward us with an increasing number of earlier diagnoses of cancer of the stomach.

The only treatment that offers any hope at all is resection of the cancerous portion of the stomach. Surgical measures should be divided into those whose effort is curative, and those which afford the patient the minimum amount of suffering the rest of his life. Every case of cancer of the stomach should

be explored, even if the X-ray findings indicate the condition to be inoperable. Bloodgood² says he has frequently been able to resect the entire growth when it appeared impossible before operation. The following case illustrates the point.

Case 4: Mr. J. A., a white male, 67 years of age, entered the hospital because of persistent vomiting and because of a palpable tumor in the epigastrium. He has had indigestion for five years and has grown progressively worse in the past three years. For the past six months, he has been conscious of the lump in his abdomen. He does not eat, because, he knows he will have to vomit as soon as the food is taken. He is markedly constipated, but has no particular pain.

Physical examination was essentially negative, except for a large tender fixed mass in the epigastrium, and for a left inguinal hernia. An X-ray examination of the stomach showed a huge filling defect with complete pyloric obstruction. These findings certainly indicated that the growth was beyond resection. After one week of careful preparation, including repeated gastric lavages and a whole blood transfusion, he was operated on. The huge nodular mass was easily separated from the liver and pancreas, and there was no apparent glandular involvement. Two-thirds of the stomach was resected without difficulty. He was given a second transfusion of whole blood and left the table apparently all right. He was seen by me at 10 p. m. and at that time his pulse and temperature were normal, and he was apparently in excellent condition, being perfectly conscious. He was found dead in bed two hours later, death presumably being due to an embolus.

The growth should be removed whenever it can be done, even though there are visible metastases already present, as the patients are far more comfortable and the mortality of resection is very little higher than that of gastroenterostomy for cancer of the stomach as a palliative measure. (Saltzstein) If resection is impossible it is better to divide the stomach above the growth and close the pyloric segment. An end to side anastomosis of the gastric stump to the jejunum with an enteronastomosis of the two loops re-establishes the continuity of the gastrointestinal tract and will give better drainage than a gastroenterostomy. This is also more easily done in the average case. In some instances nothing will be possible but a jejunostomy through which the patient can be given nourishment. The following case illustrates the inadequacy of gastroenterostomy as a palliative measure.

Case 5: Mr. J. D., a white male, 63 years old, entered the hospital July 16th, 1928, because of a

large painless tumor in the upper abdomen. Until ten months before his health was good, and he had not been conscious of any stomach disturbance. He still had no difficulty in eating, but had lost all desire for food. About ten months before this time he noticed a small lump in his right upper abdomen which gave him very little trouble until the past two months. Since then it has grown very rapidly and he has progressively lost weight and strength. He consulted a doctor because of his completely exhausted condition.

There was no history of cancer in his family.

Physical examination showed an emaciated man with a huge nodular tumor in the upper abdomen, presumably the liver. An exploratory operation was done purely out of curiosity, but with the full consent of the patient, and exposed a tremendously enlarged liver filled with cancerous nodules and a small cancer located high on the lesser curvature of the stomach, almost at the junction of the oesophagus. The wound was closed and the patient died from exhaustion two weeks later. This man was incurable from the moment the growth became present.

Resection of the cancer bearing portion of the stomach together with the gland bearing area of the lesser curvature is the treatment of choice. This can be done in one or two stages. Balfour³ states that when resection is indicated, it can usually be carried out as safely in one stage as in two. That is true with surgeons of Balfour's ability, but for the rank and file, the two stage procedure is safer, especially in those cases with marked obstruction and emaciation. At the first stage, the stomach is divided sufficiently far above the growth to make a safe closure of the pyloric segment. The gastric stump is then sutured to a loop of the jejunum, twelve to fifteen inches from its beginning.

An enteroanastomosis between the two loops of the jejunum is then done. The anticolonic type of anastomosis is easier and can be done under local anaesthesia. The pyloric segment is carefully closed and left behind. Some two weeks later the wound is reopened and the cancer bearing remnant is removed. In the following case this procedure was carried out.

Case 6: Mr. J. G. M., a 70-year-old man, entered the hospital because of persistent vomiting. Even water would be vomited. He stated that six weeks previously he began vomiting at night and would vomit more than he had eaten, the food smelling very foul. He had lost thirty pounds in weight and was extremely weak and emaciated, although he suffered no pain or discomfort.

Physical examination was essentially negative, except for a freely movable palpable tumor in the epi-

gastrium. After careful preparation, including gastric lavages, transfusions and infusions, he was operated on and the first stage of a resection done under local anaesthesia. The growth was entirely within the stomach, occupying the entire pylorus. He left the hospital twelve days later, and five weeks from the date of the first operation, the second stage was done in his home under local anaesthesia without difficulty. He is still alive, eats well, but is quite weak.

An advantage of this method is that the stomach drains better. The operation is less shocking and time consuming at the first stage. The inflammatory reaction about the growth subsides, and its subsequent removal is made easier. Feeding is uninterrupted at the time of the second operation, which can be done under local anaesthesia. If the operation is to be completed in one stage, it is better to begin the resection by dividing the body of the stomach, rather than the pylorus. The anastomosis is then completed, and if, for any reason, it should become necessary to abandon the operation at this time, the pyloric segment can be hurriedly closed, and removed at a later date. If the pylorus is divided first, all bridges have been burned behind and the operation must be completed in one stage.

No attempt should be made to dissect the glands about the stomach, except those along the curvatures that are removed. If other glands, especially those about the celiac vessels and bifurcation of the aorta are enlarged, it is equally possible that it is due to an inflammatory process, and if not, the disease is incurable anyway, and the attempt to remove them only increases the operative risk.

It seems hardly necessary to add that every patient should be given a most careful pre-operative preparation. The effects of obstruction must be counteracted by infusions of saline and glucose. Whole blood transfusions are very stimulating; repeated gastric lavage and forced nourishment are most essential. The heart should be digitalized, whenever there is myocardial weakness. After the operation, nothing is more essential than repeated gastric lavage. Retention must be avoided, and the stomach should be washed out as often as necessary.

Summary

Cancer of the stomach is a very common disease. The diagnostic symptoms usually associated with cancer of the stomach repre-

sent a hopeless condition. Diagnosis in a curable stage can only be arrived at by keeping the possibility of this disease always in mind, and by diligently searching for it in every case presenting abdominal symptoms referable to the stomach. It is impossible to differentiate an early carcinoma from a simple ulcer, and a persistent ulcer should be treated surgically as a prophylactic measure. Operation is the patient's only hope and is indicated in every case. The growth should be removed whenever possible, and can be done more safely in two stages. When it is possible to remove the growth, palliative operations will lengthen life and increase the comfort of the patient. The public should be taught the importance of cancer of the stomach.

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DISCUSSION ON PAPER OF DOCTOR QUATTLEBAUM

Dr. Cleveland Thompson, Millen. Ga.—Doctor Quattlebaum has covered the subject so thoroughly that the paper requires very little discussion.

According to statistics, one woman in five will die of cancer, and one man in seven will die of cancer. According to the statistics, Doctor Quattlebaum has quoted, 30 per cent of all these are cancers of the stomach. That is an astounding thing in itself. Doctor Quattlebaum has pointed out to us that the main problem, in curing cancer of the stomach, is its early recognition, and the main element in making a diagnosis is to think of the possibility of cancer of the stomach. The fact that 30 per cent of all cancers in mankind are in the stomach should make us think of that disease in any case of chronic indigestion.

Doctor Quattlebaum indicated that the only conservative treatment and attitude towards these cancers of the stomach is the most radical. He spoke to us about educating the public and the profession. It seems to me the profession in this instance more than

the public needs education. Generally speaking, the patient who has indigestion quite soon consults a physician, and that physician treats him for a long or short time before deciding that there is anything unusual the matter, and then refers that man or woman to a surgeon. As a rule, it is then too late. Urologists know that if they get a case of prostatic obstruction into their hands before it is too far advanced they can cure the patient. The case of cancer of the stomach is similar. If the general practitioner will refer these patients to the surgeon soon enough it is a comparatively easy matter to effect a cure. Of all the patients who come into the office with "stomach trouble" which are the most likely to have cancer? Given a man or woman past 40, who has never had stomach trouble before, the probabilities are that this case is a cancer of the stomach, and the doctor has not done his duty until he has made a thorough investigation and has ruled out this condition.

Dr. William L. Cooke, Columbus, Ga.—I wish to commend Doctor Quattlebaum for the thorough way in which he covered the subject, and Doctor Thompson also. They covered the subject so well that there is not much left to say, but I wish to emphasize a few points that Doctor Quattlebaum made. First, in the early diagnosis, there is frequently a paucity of symptoms of the condition. Cancer of the stomach, in my experience, presents very few early symptoms. I think it is much more prevalent than Doctor Boyd stated in his remarks. We frequently see a case that is far advanced that has occasioned no symptoms whatever. This was evidenced by a patient I operated upon four or five years ago. She came in with a tumor about the size of an orange in her epigastrium, which she had discovered herself. She had had no symptoms whatever referable to her stomach or to the condition which was present. I resected the mass, did an anastomosis, and she lived for about eighteen months, but died of a recurrence.

Another thing to which I wish to call your attention is the preparation of these patients for operation. A good many of them come to us in a badly run down condition, and I wish to emphasize the value of blood transfusion as the best method of getting these individuals into a proper condition for operation.

Another thing which I wish to emphasize is the use of local, regional and spinal anesthesia in operating, in preference to a general anesthetic. As I stated before, these patients are commonly in a very poor condition and a general anesthetic not infrequently is too much for them. They can nearly all be operated on under some form of local anesthesia.

Another point I wish to emphasize is the necessity for complete removal of the growth. This can be done in many cases that seem to be thoroughly inoperable. A patient consulted me just a year ago, an old man who had been treated for pellagra for several months before a true diagnosis was made. When first seen he had a marked pellagrous eruption on the dorsal aspect of both arms, the elbows and neck. He was in

a deplorable condition. He also had a good sized mass in the epigastrium. I gave him two transfusions, as near together as possible, and then did a complete excision of the growth and made an end-to-end anastomosis with the duodenum. In this case local anesthesia was used. That old fellow was in my office a few days ago and says he never felt better. Of course, it is too early to claim a permanent cure.

Following operation we cannot give food by the stomach, also my experience with rectal feeding has been very discouraging. I wish to stress the value in these cases of venoclysis as the method of choice for nourishing the patient and keeping water from getting below the proper level in the tissues. We can keep patients alive for weeks by means of venoclysis, using 10 per cent of glucose in normal salt solution.

Dr. E. L. Bishop, Atlanta, Ga.—Doctor Quattlebaum's paper was excellent and I enjoyed it very much. One of his case reports brings up a point which is of considerable importance; that is, that the size of the tumor is no indication of the grade of malignancy, in fact, the largest types of gastric cancers are the least malignant in their earlier stages. The bulky fungating papillary adenocarcinoma may remain localized on the mucosa, for some time, later gradually extending through the submucosa and muscularis. When ulceration takes place, the progress is more rapid, the nodes becoming involved and later metastases occurring. This type of large tumor of relatively low malignancy is borne out in a case, operated upon by the late Dr. Nicolson, ten years ago, in which there was a large cauliflower tumor, non-ulcerated, and without glandular or liver involvement. This patient is seen at intervals at the Steiner Clinic, and at present is without any evidence of disease. I thoroughly agree that these patients are all entitled to an exploratory operation, for some of the cases which seem hopeless from a clinical standpoint, are found to be operable and some of them may be cured.

The most malignant type is the rather small, indurated and infiltrating carcinoma, extending rapidly in the gastric wall and giving rise to early and widespread metastases. The gelatinous type does not lend itself to operation on account of the infiltration and the impossibility of getting beyond the gelatinous material which extends between the layers and fibres of the wall. Recurrence occurs rather quickly.

Many of the so-called "ulcer-cancers" fail to show actual malignancy on section. We have made large sections through the entire area removed and have failed to find any malignancy in most of these. On the other hand, a number of small chronic ulcers may show small islands of neoplastic cells just around the rim of the ulcer, which gradually extends and becomes an infiltrating type of gastric cancer. Former statistics as to the occurrence of carcinoma in gastric ulcer are too high, probably not more than 2 or 3 per cent of gastric cancer having their origin in ulcer.

If there is no liver metastasis at the time of operation the patient may be benefited by resection, but if

the liver is involved, the case is hopeless. However, apparent involvement of a node or two, immediately adjacent to the tumor, does not mean that the case is absolutely hopeless, for these may be removed with the resected area, and these are frequently found to be hyperplastic lymphadenitis and not actual metastases.

Dr. Thomas Harrold, Jr., Macon, Ga.—It has been a great pleasure to hear this paper on carcinoma of the stomach. I think the surgeons in Georgia are a little afraid of stomach resections, perhaps so because not many of us make many resections. I believe many surgeons consider gastro-enterostomy the best treatment for all stomach conditions. In too many instances the surgeon decides before opening the abdomen what he is going to do, and he does a gastro-enterostomy nine-tenths of the time. We have no argument with the man who says that gastro-enterostomy is the best single operation for stomach conditions, but it has definite limitations. Ulcers of the duodenum are a different matter. But I think ulcers of the stomach, whenever possible, should be excised and then whatever further operation seems necessary should be done. Until we begin to operate on more stomachs, and do something other than gastro-enterostomies, we will pass up opportunities for cure of cancer of the stomach. In the early stage it is frequently impossible to tell from outside the stomach, or on gross inspection, that the growth is cancer. If the diagnosis can be made by inspection the chance is that the case is inoperable. The best chance I see for carcinoma of the stomach is to remove it when it is so small that it seems to be a benign lesion. What chance is there to cure a carcinoma of the stomach if we start every stomach operation with the idea of doing only one procedure—a gastro-enterostomy? If you are going to do this I think you should never operate on any stomach case.

Dr. Robert L. Rhodes, Augusta, Ga.—I cannot let the opportunity pass to say a word when I see one of our pupils come through with such an excellent paper. When we see this we realize that our teaching efforts are not in vain.

I wish to stress one point, and that is the 30 per cent factor, and that ulcer of the stomach frequently leads to carcinoma. The diagnosis is the difficulty, and there are no absolute means of diagnosis when the cases are positively curable, that is, very early. Most frequently it must be determined by an exploratory operation. Adding to what Dr. Thompson said, any patient who begins to show definite gastric symptoms around 35, who has not had them before, should be suspected of having carcinoma of the stomach. I wish to add that any patient who has had chronic indigestion before that time and suffers an aggravation of the disorder at that age, should make us suspect carcinoma.

The roentgenogram, which is helpful, is not infallible. I think we can very seldom cure these cases when
(Continued on Page 80)

TRANSTHORACIC OESOPHAGEAL FISTULA FOLLOWING THORACOTOMY FOR EMPYEMA*†

Case Report

CHARLEY K. WALL, M.D.
Thomasville

During a mild influenza epidemic in 1931, a boy of 11, suffering with dyspnea and a harassing cough, was admitted to the Archbold Memorial Hospital. The history revealed that four weeks prior to admission the child had fallen from a calf while playing with his brothers on their farm near Thomasville. Falling on his head and left shoulder, the child was shaken up temporarily, but was able to resume his play for the remainder of the afternoon. The following day he was stricken with malaise accompanied by a slight rise in temperature which necessitated his going to bed. The doctor who was called made a diagnosis of influenza and considered the extreme tenderness of the left side as part of the general discomfort of the disease. In ten days the child was able to be up and about, but the following week he was seized with violent dyspnea, his temperature rose and he began to cough. This condition prevailed for another week when he was seen in consultation by me. On examination, the outstanding feature was a flat left chest, anteriorly and posteriorly. Aspiration disclosed creamy pus and the patient was brought into the hospital for thoracotomy.

At operation on March 25, 1931, a portion of the tenth left rib was resected in the post axillary line and about three pints of fibrinous pus was evacuated from one pocket. A second sac, apparently posterior to the first, was opened and one pint of old blood was withdrawn. One large hard rubber drain was sutured into place and a voluminous dressing was applied. Following operation, the patient appeared to be doing as well as is anticipated in this type of case, and on the fifth postoperative day the large drain was loosened and a smaller one was substituted. At this time the child began to run a rising temperature curve, to cough a great deal and to be generally distressed. Since the drainage from the thoracotomy wound was good, I did not know the etiology of his set-back. A fluoroscopic examination on the eighth day after operation showed a collection of fluid in the anterior portion of the chest changing its position on moving the patient. The cough and fever continued, and on the tenth day the nurse reported that in dressing the wound the discharge had a sour odor. The next day the patient remarked that when he drank water it seemed to run down and out of his side, wetting the dressings. I had him drink some grape juice to corroborate

*Read before the Chattahoochee Medical and Surgical Association, Albany, Ga., July 16, 1931.

†Sincere thanks are due Dr. Adele B. Cohn, of our resident staff, for collaboration in presenting this paper.

(Continued on Page 75)

THE JOURNAL

OF THE
MEDICAL ASSOCIATION OF GEORGIA
Devoted to Welfare of Medical Association of Georgia

139 Forrest Ave., N. E., Atlanta, Ga.

FEBRUARY, 1932

BIRMINGHAM ASSEMBLY OF THE SOUTHEASTERN SURGICAL CONGRESS

The medical profession of Georgia is familiar with the Southeastern Surgical Congress, which was organized at the State Convention in Augusta two years ago. This rapidly growing organization, embracing Georgia, North Carolina, South Carolina, Florida, Tennessee, Alabama, and Mississippi, bids fair soon to rival the New England Surgical Society, the Western Surgical Association, the Pacific Coast Surgical Association, and other regional societies in their respective fields. Unlike the limited Southern Surgical Association, unlike the general Southern Medical Association, the Southeastern Surgical Congress is planned for all the highly trained, properly qualified surgeons of this section and for them only. Such an organization can do much to stimulate progress in the science of surgery, to co-operate with accredited medical schools and hospitals for higher standards of medical education, and to elevate the standard of surgery in the seven component States.

The third Assembly of the Congress will be held in Birmingham, March 7-8. Last year the Assembly was distinguished in two ways: every speaker listed on the program delivered his paper, and most of them remained to hear the other speakers. May this Assembly be equally distinguished.

The Program Committee has done its work well:

Ballenger: "The Diagnosis of Surgical Affections of the Kidney and Ureter."

Brenizer: "Observations Drawn from 2,500 Thyroidectomized Cases, with Special Reference to Hyperthyroidism and Hypothyroidism."

Willis Campbell: "Central or Intracapsular Fractures of the Neck of the Femur."

T. M. Davis: "Motion Picture Demonstration of Transurethral Correction of Prostate Gland Obstruction, with Report of Results in Over Three Hundred Cases."

R. H. Greene: "The Role of Neurology in the Field of Surgery."

Hagaman: "A Practical Treatment for Fractures of the Clavicle."

Haggard: "Perfecting Methods in Operation for Toxic Goiter, with Lantern Slides and Moving Pictures."

Dean Lewis: "The Differential Diagnosis of Bone Lesions."

Jeff Miller: "The Gynecologic Backwash of Obstetrics."

Royster: "The Complicating Lesions of Appendicitis."

Sanders: "The Present Status of Gallbladder and Duct Surgery."

Laurence Scott: "The Surgical Care of Infantile Paralysis."

Tyler: "Avertin Anesthesia."

Perhaps fearing that these prophets might be regarded without honor in their own country, the Program Committee has mixed with them celebrities from other sections in

The JOURNAL would like to record the scientific work of Georgia doctors. It earnestly requests, therefore, that each physician in the State who publishes a contribution in some other medical periodical submit an abstract of the article for these columns.

equal parts. Crile will tell of the latest thing in surgery, denervation of the suprarenal gland. Babcock and Rankin will attack carcinoma of the rectosigmoid from somewhat different angles. Blair will speak on surgery of the ocular appendages, and Erdmann on diverticulitis. Hedblom will lecture on the treatment of diaphragmatic hernia, Jackson on cancer of the larynx, and Lahey on peptic ulcer. Simpson will talk about the surgical aspects of undulant fever, and Walters will discuss gastric surgery.

The Association has received numbers of requests recently from European and other countries for special copies of the Journal, also solicitations for exchange privileges. The value of the articles written by our members must be considered favorably and of more than mere passive interest.

A NEW ARRIVAL

The Journal welcomes to the family of medical publications the *Bulletin of The Southern Surgical Congress*, which put in its appearance in January. The little magazine is neatly and carefully gotten up. Praise Allah, we could not even detect a typographical error in the first issue! The type, however, might be a little more ornate for such a bulletin.

The first issue is largely devoted to explaining the reasons that brought the South-eastern Surgical Congress into being and its purposes. We were particularly struck with Dr. Willis C. Campbell's little essay, "The Relation of the Orthopedic Surgeon to Medicine." We hope this will be followed by others to set forth with equal cogency the relations of the various specialties to general medicine.

We were very much delighted to see that the Congress plans to publish a monthly journal to carry not only the papers read before the Assembly, but also to encourage other surgeons in the South to contribute of their experience to the advancement of their profession. It is rather lamentable that, except for the State Journals, few medical magazines are published in the South, and equally lamentable that so few Southerners sit on the editorial boards of those published in Chicago and the East.

In the past the South has been altogether too content to let New England write the nation's history. In recent years Southern historians have arisen and the South has contributed more than her share to the literature of belles lettres, too. It is time she was waking up scientifically and contributing her bit to professional literature. The brains are to be found in the South, the skill is here: is the energy lacking? Or is the ambition waiting to be kindled? May this proposed journal of the Southeastern Surgical Congress fan many a spark of genius to a transcendent flame that will illumine the South and the Nation!

Hotel DeSoto, Savannah, headquarters for Eighty-Third Annual Session of the Association, May 17-20.

GEORGIA'S FACILITIES FOR THE DIAGNOSIS AND TREATMENT OF CANCER

Since the publication of the report of the Cancer Commission of the American College of Surgeons in *Surgery, Gynecology, and Obstetrics* last year, a great deal has been written about cancer clinics in general hospitals. The Bulletin of the College has given much space to this subject and stressed in great detail the necessity of establishing these clinics.

For the past twelve years many of the best medical men in Georgia have been devoting much of their time to the study of cancer. In 1917, the State Medical Association authorized a cancer commission and has endeavored to create an interest in the early diagnosis of all forms of malignancies.

The first organized effort to treat cancer in Georgia was made in Rome in 1919 as a result of a bequest from the late Mr. J. P. Cooper, of that city; this bequest to be known as "The Cooper Radium Fund". The Harbin Hospital was made custodian on condition that they treat worthy charity cases free, and make for those able to pay, only such charges as would come within their means. One hundred milligrams of radium were purchased and the necessary pathological and other laboratory equipment installed. This has been increased from time to time until the hospital now has one of the best equipped plants in the State. In connection with the work of the Cancer Commission of the Medical Association, a campaign of education has been conducted by the staff of this fund in nearly all the counties of the northwest section of Georgia. Surgery, x-ray, and radium are harmoniously combined in the diagnosis and treatment of cancer. Since the organization of the work an annual average of 175 cases has been treated.

Augusta serves the eastern section of the state with a well-equipped cancer clinic, connected with the University Hospital and manned by members of the faculty of the Medical Department of the University of Georgia. This clinic is under the direction of Dr. G. T. Bernard, of the department of dermatology. Conferences are held at regular intervals. Consultation on private cases is the rule, while charity cases, after examination by the staff, are treated in the respective departments of the hospital. The case records are grouped and arranged for reference and statistical purposes. The Dean of the college and the Superintendent of the hospital cooperate to the extent of their ability in giving this department the success it deserves.

In addition to surgery and irradiation, the administration of a foreign proteid—Koch's old tuberculin, in larger doses than was formerly thought possible—has benefited many apparently hopeless cases.

The tumor department of the John D. Archibald Memorial Hospital at Thomasville serves the southeast section of the state. Owing to very little publicity in the lay press, it is only known to a limited number of people. It has 110 milligrams of radium element in the form of needles and plaques, the very best x-ray equipment, a coagulation machine, and an electric cautery. A high grade pathologist is in attendance, and biopsies are done on each case with the exception of some types of epithelioma. Complete histories and records are kept and cross-indexed. Only one feature—a social service worker—is lacking to make this department complete.

Macon, located in the geographic center of the state, has a well-equipped clinic for private patients conducted by a well-balanced group of physicians and surgeons. They have 135 milligrams of radium and a late type deep therapy x-ray plan. The radium is so arranged that any form of cancer, to which radium is applicable, can be treated. Unfortunately, no organized effort has yet been made to care for charity cases; but many members of the staff of the city hospital are urging the governing commission to make it possible for such steps to be taken.

In Atlanta, the Albert Steiner Ward of Grady Hospital, established by a bequest of the late Mr. Albert Steiner "for the medical and surgical treatment of the poor of Atlanta", is devoted to the treatment of cancer. It is manned by a full-time staff and a resident surgeon, and is equipped with a deep therapy x-ray machine and an emanation plant containing 1 gram of radium. There is also a visiting staff, made up of a group of physicians and surgeons representing all departments of medicine and surgery. A well attended weekly conference is held, at which selected cases are shown and discussed.

In addition to this department of Grady Hospital, many of the surgeons and radiologists of Atlanta devote much time to the study and treatment of cancer. There are 450 milligrams of radium available, while several of the hospitals have excellent deep therapy x-ray plants and well-equipped laboratories, where frozen section studies may be made at the time of operation.

Besides the above mentioned centers, Georgia is fortunate in having many smaller hospitals where cancer is receiving special attention. This state-wide, intelligent work is largely the result of the educational cam-

paign of the State Medical Association and the district and county societies, who recognize the fact that the most elaborately equipped plants are useless unless the disease is diagnosed and treated before metasasis has made cure impossible.

J. L. CAMPBELL, M.D., *Chairman.*

*Cancer Commission of the
Medical Association of Georgia.*

AMERICAN HOME ECONOMICS ASSOCIATION

Atlanta, Georgia—June 20-25, 1932

The members of the Woman's Auxiliary to the Georgia Medical Association will be interested to know that Atlanta has been selected as the place for the 1932 meeting of the American Home Economics Association. The invitation to meet in Atlanta was accepted after much competition with a number of southern cities. This will be the second time during the twenty-four years of its history that the Association has held the annual meeting in a southern state.

This Association is composed of more than ten thousand professional women interested in problems related to home and family life. Affiliated with it are more than one thousand student clubs in the high schools and colleges of the country. Membership in the state home economics association carries with it membership in the American Association.

The program of work is carried on in five subject matter sections and ten professional departments. The Family and its Relationships, Family Economics, The House, Foods and Nutrition, and Textiles and Clothing comprise the subject matter sections. The professional departments are: Child Development and Parent Education, College and Universities, Elementary and Secondary Schools, Extension Service, Home Economics in Business, Home Economics in Institutional Administration, Home Making, Research, Social Service, and Student Clubs.

Announcements regarding the program for the Atlanta meeting will be made in a later issue of this Journal. Outstanding men and women who will be interesting to doctors and their wives will appear on the program.

LEILA BUNCE,

CLARA LEE CONE,

Co-Chairmen, Committee on Local Arrangements.

The Medical Association of Georgia will hold its Eighty-Third Annual Session at Savannah, May 17, 18, 19, 20. Hotel DeSoto will be headquarters.

Officers of the Georgia Medical Society (Chatham County) are as follows: Dr. William A. Cole, President; Dr. Robert Drane, President-Elect; Dr. John L. Elliott, Vice-President; Dr. Otto M. Schwalb, Secretary-Treasurer; Dr. R. V. Martin and G. H. Lang, Delegates.

Titles for papers to be read before this session should be submitted to Dr. James E. Paullin, Chairman, Committee on Scientific Work, or to the Secretary-Treasurer, at once.

TRANSTHORACIC OESOPHAGEAL FISTULA FOLLOWING THORACOTOMY FOR EMPHYEMA

(Continued from Page 71)

rate this observation and immediately the liquid appeared in the incision.

Never before had I been confronted with a similar complication. X-ray studies after a swallow of iodipin showed an opening into the left of the oesophagus just behind the sterno-clavicular juncture, half of the fluid passing down into the stomach, the other half through the fistulous opening, down the left of the gullet and laking above the diaphragm. Having ascertained in this manner the site of the fistula in the gullet, I resorted to feedings other than oral, but the rectal and other routes proved unsatisfactory. I then restricted his nourishment to thin liquids which were taken well despite the fact that half of the food passed out through the chest wall. After ten days on liquids the patient took thicker fluids and semi-solids and he tolerated them well, although I had to replace the first drains with two short rubber drains in order to facilitate food drainage from the thorax.

During this time the lung was returning to its normal position on the injured side and the patient was well enough to be out of bed. On the twenty-eighth day he was discharged from the hospital and was followed up with weekly observations at the office. With the exception of some discomfort only once after the ingestion of a heavy meal, the convalescence was uneventful. At that time he complained of a sharp pain in the precordium which was probably the result of too much food collecting in the fistulous tract with consequent embarrassment of the heart.

At the end of the second month the drainage tubes were still in situ, but no more food had passed. Iodipin, again given under the fluoroscope, failed to show any opening and none of the fluid escaped into the fistula. After ten days on a more liberal diet, the patient had ceased entirely to pass food through the fistula, so that the tubes could be removed at this time and recovery was completed.

The literature on this type of case is scant, and, on asking the Prior Consulting Service for material of a similar nature, only two recorded cases were found by them. One of the cases reported presented some similarity to mine, except that the thoracic condition had ruptured into the oesophagus before the chest was drained. Food had appeared in the thoracotomy wound the day after operation and the patient was fed through a stomach catheter. Recovery resulted, although the pus had burrowed through the chest wall under the pectoralis muscle in addition to its drainage through the oesophagus. The other case described was a woman who had swallowed a small meat bone which caused an erosion in the gullet and a mediastinal abscess. Drainage here was also by thoracotomy.

In both cases cited above, nutrition was maintained by means of catheters introduced for that purpose. In my case I was hesitant about passing stomach catheters lest I favor enlargement of the oesophageal opening

and delay healing; the results, however, obtained from dieting with fluids left little to be desired.

Because of the comparative rarity of this type of case, I felt that it was worthy of being reported. Indeed, metapneumonic emphyema into the esophagus is a bizarre complication, but my limited experience with it has led me to believe that the tendency in these cases is toward spontaneous recovery.

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COUNTIES REPORTING FOR 1932

Cherokee County Medical Society

The Cherokee County Medical Society announces the following officers for 1932:

President—F. B. Murphy, Canton.

Vice-President—T. J. Vansant, Woodstock.

Secretary-Treasurer—Geo. C. Brooke, Canton.

Delegate—N. J. Coker, Canton.

Censors—G. N. Coker, D. H. Garrison, and R. M. Moore.

Stewart-Webster Counties Medical Society

The Stewart-Webster Counties Medical Society announces the following officers for 1932:

President—W. C. Sims, Richland.

Vice-President—J. F. Lunsford, Preston.

Secretary-Treasurer—J. M. Kenyon, Richland.

Delegate—W. C. Sims, Richland.

Alternate Delegate—J. M. Kenyon, Richland.

Telfair County Medical Society

The Telfair County Medical Society announces the following officers for 1932:

President—D. W. F. Maloy, Milan.

Vice-President—Frank Mann, McRae.

Secretary-Treasurer—C. J. Maloy, Helena.

Delegate—C. J. Maloy, Helena.

Alternate Delegate—W. H. Born, McRae.

Worth County Medical Society

The Worth County Medical Society announces the following officers for 1932:

President—J. L. Tracy, Sylvester.

Vice-President—H. S. McCoy, Sylvester.

Secretary-Treasurer—Gordon S. Sumner, Poulan.

Censors—J. J. Crumbley, W. C. Tipton, and H. S. McCoy.

Tri County Medical Society

The Tri County Medical Society announces the following officers for 1932:

President—J. G. Standifer, Blakely.

Vice-President—R. R. Bridges, Leary.

Secretary-Treasurer—W. O. Shepard, Bluffton.

Delegate—C. K. Sharp, Arlington.

(Continued on Pages 78-80)

GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. ABERCROMBIE, M.D., *Director*

REVIEW OF PUBLIC HEALTH

The first record of any law pertaining to public health in Georgia was passed in 1732, appropriating thirteen guineas for the relief of the sick and child-bearing women during passage to the province.

In 1875, the legislature passed a bill creating a State Board of Health. Dr. V. H. Taliaferro was elected Secretary at a salary of \$1,000 a year. No appropriation was made for the work in 1877 and it was discontinued.

In 1903, the legislature organized the second State Board of Health. An appropriation of \$3,000 per annum was made. Dr. H. F. Harris was elected Secretary. The first work was devoted to bacteriology. Handicapped by limited resources, Doctor Harris' perseverance in the work is highly commendable.

Doctor Harris resigned in 1917, and Dr. T. F. Abercrombie was elected Secretary. The health laws were amended in 1917, giving authority for the eight divisions now in operation, and the appropriation was gradually increased.

In 1931, the legislature abolished the State Board of Health, placing the work under the Department of Public Health, retaining the Secretary as Director for the remainder of his term.

The progress of public health work in Georgia can be ascertained from the following summary of the work accomplished during 1931:

Preliminary Vital Statistics

All rates for 1931 are computed on an annual basis, estimated from the returns for the first ten months; consequently, they are subject to change when returns for the entire year are received. The peak for some causes of death has passed; for others, it may come in November or December. However, the morbidity reports do not show that there will be an appreciable increase in the estimated deaths from any cause.

Mortality returns for the first ten months of 1931 indicate that favorable health conditions have prevailed throughout the state. The death rate from all causes for 1931 is estimated to be 11.0, or nine per cent lower than the rate (12.1) in 1930.

Typhoid fever, diphtheria, malaria, tuberculosis, and pellagra show substantial reductions in death rates. The greatest reduction is shown for malaria. In 1930, the rate was

15.2; in 1931, it is 9.6, a reduction of thirty-seven per cent. The death rate from pellagra in 1931 is 19.8, or nineteen per cent lower than the rate (24.5) for 1930.

The past year was abnormally dry, which fact usually causes a high incidence and mortality from typhoid fever, but the indications are that there will be a decrease in the rate rather than the expected increase. The estimated rate for 1931 is 16.7, or 3 per cent lower than the rate (17.2) in 1930.

The infant mortality rate (69.8) is the lowest since 1922.

Homicides, suicides, and accidents will probably show increases in rates.

County Health Work

At the present time, there are thirty-eight counties in the state carrying on full-time health programs, including two districts. Approximately fifty per cent of the population is located in these counties having public health service. Economic conditions have made it difficult for many of them to carry on the work; however, health work was discontinued in only one county last year.

A mobile health unit has put on demonstrations of county health work in eleven counties. The personnel consists of a health officer, nurse, and a sanitary inspector. This unit has demonstrated the value of full-time health work in rural counties.

Since the typhoid fever problem in Georgia is a serious one, the county health officers of the state have been requested to follow up every case of this disease during convalescence with the view of detecting and eliminating carriers. The problem will be lessened considerably when carriers are controlled.

During the month of May, through cooperation with the Georgia and Florida Railroad, a health exhibit train was operated over the Georgia and Florida line. More than 20,000 people viewed the exhibit and attended the lectures given each night.

Dental Hygiene

The dental hygiene program was carried into eighteen counties during the past year; 167 schools were visited, reaching approximately 26,413 people. During the school vacation period, corrective institutions and mill villages were visited. Ten summer institutes for teachers were, also, visited, reaching 1,451 teachers.

At the beginning of the year, an arrangement was made with the dental profession to make all examinations. The Dental Educa-

tional Committee reports 187,079 examinations, 352,953 defects found, 119,083 corrections made, and 87,379 children with no observable defects.

Child Hygiene

A system of contacting every midwife in the state was instituted at the beginning of the past year by dividing the state into five districts and placing a nurse in each district to instruct the midwives. There are 7,165 midwives whose records are on file in this office. Of this number, 3,084 have qualified under State Health Department regulations.

The summer roundup of pre-school children was conducted in every county in the state through co-operation with the Parent-Teacher Association. The President of the Medical Association of Georgia appointed a physician in each county to make physical examinations.

The fifth edition, 50,000, of the Georgia Baby Book is now on the press. The book has been revised; several new features have been added.

Early in April, the Governor issued a proclamation in which he named May 1 as "Maternity and Child Health Day", thus linking Child Health Day and Mothers' Day, which come near together on the calendar. Parent-Teacher Associations, medical societies, churches, civic and social organizations co-operated effectively in this work.

Laboratories

By comparing the total number of specimens examined during 1931, 105,276, with 89,949 in 1930, and 70,986 in 1929, a fairly accurate index of laboratory growth is seen.

In view of the popular idea that much of our enteric fever is paratyphoid, it is interesting to note that among more than 400 positive typhoid cultures of the typhoid paratyphoid group, only five were paratyphoid. These findings indicate that paratyphoid fever is a relatively rare disease in this state.

Findings are beginning to show interesting figures as to the distribution of hookworm and other intestinal parasites in the state. Many of the sections of South Georgia still show high incidence of hookworm, while others in the upper half of the state are relatively free of hookworm.

The technique of culturing throats of all convicts was employed in an outbreak of meningitis in the United States Penitentiary. In this way, the carrier was located in the person of a prisoner who had meningitis six months ago.

Undulant fever is still a subject of considerable interest, but the number of cases occurring annually in Georgia is still small as

compared with other infectious diseases. Approximately forty cases have been diagnosed by the laboratory this year. Apparently raw milk is the chief probable source of infection, although a few cases gave history of exposure to live stock.

Rabies shows an appreciable decline as evidenced both by brain examinations and the number of treatments distributed. One questionable case of rabies was reported, with no record of treatment.

About sixty tons of dried brewers' yeast were distributed during 1931. Aside from many individual testimonials which have reached this office, there is yet no reliable method of determining the value of yeast in the prevention and treatment of pellagra. Something has lowered the mortality, while neighboring states report increased mortality.

Diphtheria toxoid and toxin-antitoxin are not being used as much as merits justify in spite of the fact that the price to the consumer has been reduced to forty per cent of the cost price. Of each dollar spent for these products, thirty per cent is paid by the Bankers Health & Life Insurance Company of Macon, thirty per cent by the State Department of Health, and forty per cent by the consumer.

The laboratories supply the freshly prepared dilutions of tuberculin to health officers and others engaged in the early diagnosis of tuberculosis.

Sanitary Engineering

There are approximately 275 public water supplies in the state, 62 per cent of which are under supervision of the State Department of Health. During the past year, plans were approved for seven new plants. There were 8,686 analyses made in our laboratory of samples from these supplies. Assistance has been rendered on improvement of several hundred supplies in rural homes.

During the past year, field investigations were made of 137 sewage disposal facilities. Every effort is being made to bring these disposal facilities up to a standard.

There are forty-six lakes in the state for the purpose of hydroelectric development, all of which are under observation and investigation by this department for protection of the public from malaria infection. The total area is approximately 150,000 acres. Seven of these lakes are under larvacidal application during mosquito producing season.

Twenty-three counties are now using convicts for county drainage to reduce malaria. Engineers are furnished from this department without cost to the counties to make drainage surveys. The proposed drainage is staked out for construction under engineering super-

vision extended through the execution of the work. This work is progressing rapidly throughout the malarious section of the state. In these twenty-three counties, 248 ponds have been drained, draining 8,922 acres of land, covering a distance of sixty and three-fourths miles.

Venereal Disease Control

Talks on social hygiene subjects have been delivered to various groups of boys, girls, men, and women. An invitation to speak to the student nurses of all the hospitals in Atlanta on venereal disease was accepted. An unusual departure from invitations to address audiences came from the judicial circuits of Judges Pittman and Maddox. Approximately 9,000 people have been reached through these lectures.

Requests for literature on venereal disease control have steadily increased; 10,697 pamphlets on this subject were distributed during the past year.

The annual Venereal Disease Institute was held during Emory Alumni Week, and 199 physicians enrolled for the four-day course in venereal disease control.

Extension Courses

Extension courses for rural physicians were conducted jointly by the University of Georgia, Emory University, and the State Department of Health at six different points throughout the state. A total of 315 physicians, from 81 counties, attended these courses.

Beginning August 24th, through co-operation with Emory University, the Children's Bureau, and the Rosenwald Fund, a five-day course was held in Atlanta for the Negro physicians of the state; 53 colored doctors attended this course. The Rosenwald Fund assisted by paying \$3.00 per day to each physician attending the course from outside the city.

Tuberculosis Field Clinic

The tuberculosis diagnostic clinic unit, consisting of a physician skilled in the diagnosis and treatment of tuberculosis, a nurse, an x-ray technician, and a complete x-ray laboratory, visited thirty-six counties from January through October. There were 5,141 patients examined; 1,477 were found to have tuberculosis, and 645 were suspected of having the disease, making a total of 2,122 cases placed under the care of physicians of their own choosing. Twenty-eight per cent of the cases examined were found to have tuberculosis.

A large per cent of those diagnosed as tuberculous was discovered while the disease was in its incipency, at a time when a minimum amount of care is much more effective

in accomplishing a cure than major efforts and a maximum expenditure would be several years, even months, later.

The importance of this work can be seen when it is realized that the average patient is treated at Alto at a cost of \$400.85 (1930). The field clinic service costs the state less than five per cent per patient of the sum expended in the cure of this disease.

COUNTIES REPORTING FOR 1932

(Continued from Page 75)

Censors—J. S. Beard, C. R. Barksdale, and C. K. Sharp.

Wayne County Medical Society

The Wayne County Medical Society announces the following officers for 1932:

President—J. L. Tyre, Screven.
Vice-President—I. K. Ogden, Odum.
Secretary-Treasurer—A. J. Gordon, Jesup.
Delegate—J. T. Colvin, Jesup.
Alternate Delegate—J. L. Tyre, Screven.

Clarke County Medical Society

The Clarke County Medical Society announces the following officers for 1932:

President—W. H. Cabaniss, Athens.
Vice-President—Paul L. Holliday, Athens.
Secretary-Treasurer—J. H. Campbell, Athens.
Delegate—J. W. Davis, Athens.

Glynn County Medical Society

The Glynn County Medical Society announces the following officers for 1932:

President—G. W. H. Cheney, Brunswick.
Vice-President—J. W. Simmons, Brunswick.
Secretary-Treasurer—T. V. Willis, Brunswick.
Delegate—C. B. Greer, Brunswick.
Censors—L. W. Pierce, J. B. Avera, and R. S. Burford.

Emanuel County Medical Society

The Emanuel County Medical Society announces the following officers for 1932:

Vice-President—R. L. Sample, Summit.
Acting Sec'y.-Treas.—R. C. Franklin, Swainsboro.
Delegate—R. C. Franklin, Swainsboro.
Alternate Delegate—J. H. Chandler, Swainsboro.
Censors—A. C. Johnson and R. C. Franklin.

Washington County Medical Society

The Washington County Medical Society announces the following officers for 1932:

President—B. L. Helton, Sandersville.
Vice-President—L. C. Mitchell, Sandersville.
Secretary-Treasurer—W. M. Cason, Sandersville.
Delegate—E. S. Peacock, Harrison.
Alternate Delegate—J. R. Burdette, Tennille.
Censors—J. B. Dillard, S. B. Malone, and T. E. Vickers.

(Other Counties Reported on Pages 75-80)

GEORGIA STATE NURSES ASSOCIATION

Officers

President—Miss Alice F. Stewart, R. N., Augusta.
 First Vice-President—Miss Dora A. Kershner, R. N., Macon.
 Second Vice-President—Miss Lillian Cumbee, R. N., Emory University.
 Secretary—Miss Florence Pund, R. N., Augusta.
 Treasurer—Miss Jane Van De Vrede, R. N., Atlanta.
 Miss Jane Van De Vrede, R. N.
 Executive Secretary

District Presidents

First—Mrs. Dorothy Treacle, R. N., Savannah.
 Second—Mrs. B. Y. Vann, R. N., Thomasville.
 Fourth—Miss Lucia Massee, R. N., Cuthbert.
 Fifth—Mrs. Sue B. Paille, R. N., Atlanta.
 Sixth—Mrs. Sarah P. English, R. N., Sandersville.
 Seventh—Miss Shirley Hamrick, R. N., Cedartown.
 Eighth—Miss Lynda Bray, R. N., Athens.
 Ninth—Miss Ruby Falls, R. N., Gainesville.
 Tenth—Mrs. Olive Barbin, R. N., Augusta.

Headquarters

131 Forrest Avenue, N. E., Atlanta.

A NEW HOROLOGUE FOR NURSING

That nursing service is undergoing great changes is clearly indicated by the rapid developments in nursing the past several years. The trend of economics, the cost to the public of medical care, including hospitalization and nursing service, has shown the need of adjustments and brought about changes in the system which necessitate a "right about face" from the free lance methods of the past.

While more and more, responsibility for furnishing graduate nursing service to the very ill patient, at a price he is able to pay, must be assumed by the hospital, other methods must be and are being employed for affording nursing care to the public within the pocketbook range of the average citizen.

Hourly nursing service of a high character, developed along strictly professional lines, is conceded by nurse leaders now to be meeting a need in a satisfactory way. It is endorsed by national and local nursing organizations, as well as by individuals, who have been studying its possibilities for the past number of years.

Looked at askance by many private duty nurses, who have experimented with it on an individual basis in the past, it is now acknowledged by these very nurses, in many instances, to have limitless opportunities. It is not only bringing service to the very door of the patient at a price within his reach, but it is likewise bringing opportunity to the nurse to enlarge her scope of usefulness. It is filling the need of the not very ill patient at home because it is an appointment service for which he is able and willing to pay.

Practiced desultorily for the past ten or fifteen years in practically all parts of the country, hourly service has now become definitely established in many communities. Its popularity is growing according to the experience of the particular community adopting it. In some localities the visiting nurse association

is taking care of the calls for hourly service; in others, the nurses' registry or nurses' placement bureau is sponsoring this appointment service, filling the calls under a well planned and developed service, provided by skilled nurses of broad experience. In registries over the country, hourly nursing has doubled within the past six months, according to statistics recently gathered.

Doctors are gradually becoming acquainted with this newest form of nursing service and adopting it because of its practicability and its economy to their patients. What more reasonable than that the doctor should be as zealous in lending his co-operation to the newer developments of nursing care as he is in seeing that laboratory and clinical service are afforded his patients? All services are needed to hasten the patient's recovery. Upon good nursing care often depends the life of a patient, and upon the nurse the doctor must depend very largely for an interpretation of his contribution to the community. Her welfare, therefore, is of importance to him and to the community, and should be considered from every angle.

Recognizing the many problems confronting nursing service—the overproduction of graduates and failure on the part of the large number of hospitals conducting training schools to reduce student personnel and to employ graduates for the care of patients, as well as failure on the part of hospitals and doctors to co-operate heartily with the nurses' registries in the distribution of graduate nursing service—the Georgia State Nurses' Association sometime ago organized an advisory committee to work with the hospital committee of the Medical Association of Georgia and a committee on the distribution of nursing service, to attack these problems. It was pointed out that these committees, working together, making a study of training school and nursing problems, using the facts made

available by the Committee on the Cost of Medical Care, should be able to develop medical and nursing service which would more adequately serve the ill as well as bring about a closer professional relationship, of advantage to both physicians and nurses.

A crisis has now been reached, and it is imperative that doctors and nurses come together in a oneness of purpose for the consideration and solution of problems confronting nursing. This would undoubtedly lead to the rapid extension of the use of more graduate service on hourly and other bases, making for a more salutary condition than now exists.

COUNTIES REPORTING FOR 1932

(Continued from Pages 75-78)

Terrell County Medical Society

The Terrell County Medical Society announces the following officers for 1932:

President—Steve P. Kenyon, Dawson.
Vice-President—W. P. Durham, Sasser.
Secretary-Treasurer—Logan L. Thomas, Dawson.
Delegate—Steve P. Kenyon, Dawson.
Censor—J. H. Lewis, Dawson.

Cobb County Medical Society

The Cobb County Medical Society announces the following officers for 1932:

President—C. W. Burtz, Acworth.
Vice-President—G. F. Hagood, Marietta.
Secretary-Treasurer—H. W. Crouch, Marietta.
Delegate—W. H. Perkinson, Marietta.
Alternate Delegate—G. O. Allen, Marietta.
Censors—L. G. Garrett, J. W. Ellis, and G. O. Allen.

Sumter County Medical Society

The Sumter County Medical Society announces the following officers for 1932:

President—E. B. Anderson, Americus.
Vice-President—S. P. Wise, Americus.
Secretary-Treasurer—A. C. Primrose, Americus.
Delegate—S. P. Wise, Americus.
Alternate Delegate—B. T. Wise, Americus.
Censors—J. W. Chambliss, Herschel A. Smith.

Dooly County Medical Society

The Dooly County Medical Society announces the following officers for 1932:

President—W. N. Edenfield, Vienna.
Vice-President—H. A. Mobley, Vienna.
Secretary-Treasurer—F. E. Williams, Vienna.
Delegate—V. C. Daves, Vienna.
Alternate Delegate—E. B. Davis, Byromville.
Censors—J. L. Lee, V. L. Harris, and H. A. Mobley.

Henry County Medical Society

The Henry County Medical Society announces the following officers for 1932:

President—R. L. Crawford, Locust Grove.

Vice-President—H. C. Ellis, McDonough.
Secretary-Treasurer—E. G. Colvin, Locust Grove.
Delegate—R. L. Tye, McDonough.

Clayton-Fayette Counties Medical Society

The Clayton-Fayette Counties Medical Society announces the following officers for 1932:

President—J. R. Wallis, Lovejoy.
Secretary-Treasurer—T. J. Busey, Fayetteville.
Delegate—J. Z. Henry, Ellenwood.

Bulloch-Candler-Evans Counties Medical Society

The Bulloch-Candler-Evans Counties Medical Society announces the following officers for 1932:

President—W. D. Kennedy, Metter.
Vice-President—R. L. Cone, Statesboro.
Secretary-Treasurer—W. E. Simmons, Metter.
Delegate—A. J. Mooney, Statesboro.
Alternate Delegate—W. E. Simmons, Metter.
Censors—R. L. Cone, E. C. Watkins, and H. H. Olliff.

Baldwin County Medical Society

The Baldwin County Medical Society announces the following officers for 1932:

President—John D. Wiley, Milledgeville.
Vice-President—R. E. Evans, Milledgeville.
Secretary-Treasurer—H. D. Allen, Jr., Milledgeville.
Delegate—W. M. Scott, Milledgeville.
Alternate Delegate—Geo. L. Echols, Milledgeville.
Censors—Y. H. Yarbrough, H. D. Allen, Jr., and R. C. Swint.

Monroe County Medical Society

The Monroe County Medical Society announces the following officers for 1932:

President—W. J. Smith, Juliette.
Vice-President—J. O. Elrod, Forsyth.
Secretary-Treasurer—G. H. Alexander, Forsyth.

DISCUSSIONS ON PAPER BY DR. QUATTLEBAUM

(Continued from Page 71)

there is a clinically definite tumor palpable before we open the abdomen. We must get these cases in the early stage. With the exploratory operation, which may be easily done under any of the different forms of anesthesia, you add nothing to the risk and it is far better to explore ten cases unnecessarily and find one with cancer, than to let the one with cancer go on beyond the possibility of a cure.

Dr. Julian K. Quattlebaum, Savannah, Ga. (closing).—I thank the gentlemen for their discussion, and wish to show a few slides which illustrate some technical points. Doctor Mayo made the statement that he never saw anyone die as the result of an exploratory operation, but that he had seen many die for the lack of one.

(Presented lantern slides.)

WOMAN'S AUXILIARY MEDICAL ASSOCIATION OF GEORGIA OFFICERS

President.....Mrs. Ralston Lattimore, Savannah
 President-Elect.....Mrs. S. T. R. Revell, Louisville
 1st Vice-President.....Mrs. J. Bonar White, Atlanta
 2nd Vice-President.....Mrs. C. B. Almand, Winder
 3rd Vice-Pres., Mrs. D. N. Thompson, Elberton

Recording Secy.....Mrs. J. E. Penland, Waycross
 Cor. Secretary.....Mrs. Wm. R. Dancy, Savannah
 Treasurer.....Mrs. Ben Bashinski, Macon
 Parliamentarian Mrs. Allen H. Bunce, Atlanta
 Editor.....Mrs. G. H. Johnson, Savannah

SAVANNAH AND THE NEXT MEETING OFFICERS ELECTED

Mrs. William Shearouse was elected President of the Women's Auxiliary to the Georgia Medical Society, held this morning at the home of Mrs. Hugo Johnson.

Other officers elected were:

First Vice-President—Mrs. Hugo Johnson.
 Second Vice-President — Mrs. Charles Usher.

Treasurer—Mrs. Rufus Graham.

Corresponding Secretary—Mrs. E. N. Gleaton.

Recording Secretary — Mrs. E. M. Baker, Jr.

Plans were discussed at the meeting for the State Convention, which will be held here in May, and Mrs. Shearouse has called a special meeting in February to further formulate the plans.

An interesting and instructive talk was made by Dr. J. C. Metts on the subject of "Neurosis".

In the absence, due to illness, of the retiring President, Mrs. Lee Howard, the meeting was presided over by Mrs. Johnson.

Following the meeting, refreshments were served.

Following is the president's report for the past year:

"From the reports of the officers and chairmen of committees, which have already been given to you, the members can form a very good idea of the work accomplished during the past year.

"To me it has been a very pleasant and successful year. Our meetings have been well attended, our programs, as planned and carried out by our program chairman, were interesting and entertaining. Several new members have joined our Auxiliary through the invitation of our membership chairman. Splendid publicity has been given to all our activities.

"We were asked by the national chairman of 'Hygeia' to obtain ten subscriptions. Our committee doubled this quota and incidentally, added materially to our treasury. Our

annual card party, given for the Student Educational Loan Fund, was a great success, and the commissions from the sale of Christmas cards much greater than we had thought possible.

"Our Auxiliary was well represented at both the mid-winter and mid-summer district meetings. Mrs. Johnson, our First Vice-President, also represented our Auxiliary at the state meeting.

"During the past year the Auxiliary has given blue ribbons to several hundred colored school children who have had all remediable defects corrected. We have furnished all necessary clothing and other articles, also paid transportation for a boy to Alto. Sent a beautiful birthday box to this same boy; also paid part of the railroad fare for another deserving child who was sent away to school. We have contributed \$150 to the student educational loan fund, entertained the mid-summer district meeting with a luncheon for those attending at the Hotel DeSoto, and also gave a reception at the Hotel DeSoto for the state nurses' convention.

"As your President, I have presided at all regular, special, and executive board meetings up to this particular time. Have made the necessary district and state reports, and answered all the mail coming to me as President.

"I am sure no President ever met with more whole hearted co-operation and help from her officers, chairmen of committees, and members as a whole.

"To my successor in office, I extend every good wish, with the same officers to assist her in the work of the Auxiliary, I am sure she will meet with the greatest success."—*The Savannah Evening Press, January 8, 1932.*

"TAKE THIS JOURNAL HOME TO YOUR WIFE"

It is a frequent comment among the members of our Woman's Auxiliary that they "never see a *Colorado Medicine*". Some of the members of this Society may not have noticed that this journal carries a section for the physicians' wives. In it are to be found articles upon national as well as local auxil-

itary affairs. They are worthy of the attention of the doctors—and most certainly of their wives.

We are depending upon the support of the wives of the physicians throughout the country to augment our efforts in educating the public in preventive medicine, the health examination, and the proper direction of health legislation. They are capable of inspiring confidence where we may fail; they may convey messages to lay organizations which our ethics and humility, unfortunately, preclude. It is for our profession that they have organized and are working. Their value to our cause is unlimited; it will be largely in proportion to the aid and encouragement they receive at the hands of their physician husbands. It is known that a number of physicians are unsympathetic with the Auxiliary and its work. May they allow themselves to recognize the potentialities of this organization and endeavor better to inform themselves of its capabilities.

It is hoped that each issue of *Colorado Medicine* will be placed in the hands of the wives of our Society members before each month has passed. There is material in the Auxiliary's section which will be of interest; there will be reading matter in the other sections which will further enhance their understanding of the work of the profession.—*Colorado Medicine, November, 1931.*

BOOKS RECEIVED

Varicose Veins, With Special Reference to the Injection Treatment. By H. O. McPheeters, M.D., Director of the Varicose Vein and Ulcer Clinic, Minneapolis General Hospital; Attending Physician New Asbury, Fairview, and Northwestern Hospitals, Minneapolis, Minn. Third revised and enlarged edition. Contains 285 pages. Illustrated with 62 half-tone and line engravings. Publishers: F. A. Davis Company, 1914-1916 Cherry Street, Philadelphia, Pa.

Courts and Doctors. By Lloyd Paul Stryker. In this book, the author, for many years general counsel for the Medical Society of the State of New York and having personal charge of the legal policy of the society and the defense of its members who were sued for malpractice, offers advice and counsel that will be instrumental in protecting the doctors against unwarranted attack upon professional character. Contains 236 pages. Publishers: The MacMillan Company, 60 Fifth Avenue, New York City. Price \$2.00.

Medical Clinics of North America. (Issued serially, one number every other month.) Volume 15, No. 4. (Boston Number—January, 1932). Octavo of 268 pages with eighteen illustrations. Per Clinic Year, July, 1931, to May, 1932. Paper, \$12.00; cloth, \$16.00 net. Philadelphia and London: W. B.

Saunders Company, 1932 West Washington Square, Philadelphia, Pa.

NEWS ITEMS

The Fulton County Medical Society held its regular meeting on January 21st. Dr. Edgar F. Fincher, Jr., Atlanta, gave two case reports. "Cerebral Neoplasm" and "Cerebral Trauma"; Dr. C. C. Aven, Atlanta, gave a clinical talk on "Birth Control"; Dr. Dunbar Roy, Atlanta, read a paper entitled "Some Practical Points in Refraction, Based on the Histories of Eighteen Thousand Cases". Drs. Wm. O. Martin, Jr., H. M. Lokey, and R. B. Ridley, all of Atlanta, lead the discussion.

The Walker County Medical Society met in the office of Dr. J. H. Hammond, LaFayette, January 29.

The Georgia Public Health Association held its annual meeting at the State Capitol, Atlanta, January 22nd and 23rd. The President, Dr. B. V. Elmore, Rome, presided. Addresses by the following: Dr. T. F. Abercrombie, Atlanta, Director of Georgia Department of Public Health; Dr. Arthur G. Fort, Atlanta; Dr. Marvin M. Head, Zebulon; and Dr. Allen H. Bunce, Atlanta, President, President-Elect and Secretary-Treasurer of the Association, respectively. Titles of papers read were as follows: "Suggestions on Malaria Control for the Future," Dr. T. H. D. Griffiths, Surgeon in Charge of Malaria Control, U. S. P. H. S.; "Trachoma Control in Georgia," Dr. C. E. Rice, Medical Officer in Charge of Trachoma Prevention, U. S. P. H. S.; "School Program in Rural Schools," Dr. Gordon T. Crozier, Valdosta, Commissioner of Health of Lowndes County; "Typhoid and Sanitation," Dr. Guy G. Lunsford, Millen, Commissioner of Health of Jenkins County; "Inspection of Small Municipal and School Sewerage Disposal Plants," conducted by Mr. E. H. Weir, Assistant Sanitary Engineer, Georgia Department of Public Health; "Organizing, Conducting, and Following Up Tuberculosis Clinics," Dr. H. C. Schenck, Alto, Chief, State Tuberculosis Mobile Unit; "Schick Tests and Toxoid in the Control of Diphtheria," Dr. T. C. Neal, Dalton, District Commissioner of Health; "Appraisal of County Health Work in Georgia," Dr. J. Victor Roule, Assistant Chief, Division of County Health Work.

The Georgia Medical Society (Chatham County) held its regular monthly meeting on January 12th. The following titles of papers were on the program: "Carcinoma of the Colon," Dr. M. J. Egan, Savannah; "Spinal Cord Tumor with Operation and Discovery—Case Report," Dr. J. C. Metts, Savannah; "Double Uterus with Operation—Case Report," Dr. T. P. Waring, Savannah.

Dr. and Mrs. A. A. Rogers, Commerce, entertained the members of the Jackson County Medical Society at their home on January 4th.

The Spalding County Medical Society held its annual meeting for the installation of officers on January 19th.

The Twelfth District Medical Society met at Hawkinsville on January 21st. The following titles for papers were on the scientific program: "Acute Abdomen," Dr. Willis B. Jones, Atlanta; "Treatment of Pneumonia," Dr. Cyrus W. Strickler, Atlanta; "Pediatrics," Dr. C. Hall Farmer, Macon; "Office Treatment of Venereal Disease," Dr. M. F. Fowler, Atlanta; "Gunshot Wounds of the Abdomen," Dr. E. B. Claxton, Dublin; "Tonsils," Dr. R. B. Ridley, Atlanta; "Consideration of the Patient, Who Needs Two Operations; One of Them Being a Thyroidectomy," Dr. Warren A. Coleman, Eastman.

Dr. J. Calvin Weaver, Atlanta, has been appointed Consulting Neuro-Surgeon at the United States Veterans' Hospital, Atlanta.

Dr. O. D. Hall, Atlanta, announces the removal of his office to the Georgia Baptist Hospital. He is chief of staff in the treatment of diseases with radium.

Dr. J. C. Bloodgood, Johns Hopkins University School of Medicine, Baltimore, conducted clinics at the Steiner Cancer Ward, Atlanta, during the week of January 11th-16th.

Dr. R. A. Bartholomew, Atlanta, has been elected President of the Wesley Memorial Hospital Staff.

The Sectional meeting of the American College of Surgeons for Alabama, Florida, Georgia, Mississippi, and Louisiana, held its annual meetings at Jacksonville, Florida, on February 1st and 2nd.

The Regional Conference of the American Social Hygiene Association, of New York City, was held in New York City, January 22nd and 23rd.

Dr. C. C. Aven, Atlanta, was elected President of the Georgia Tuberculosis Association.

The Clinical Society of the New York Polyclinic Medical School and Hospital, New York City, held its stated meeting on February 1st. The following titles were on the scientific program: "Duodenitis—Illustrated with Lantern Slides," by Dr. Edward Leland Kellogg, New York City; "Some Pathological Lesions in Sudden Natural Death," Dr. Thos. A. Gonzales, New York City; "Esophageal Stenosis—Motion Pictures and Lantern Slides," Chevalier L. Jackson, Philadelphia.

Dr. Olin S. Cofer announces the removal of his office to 1110 Doctors Building, 478 Peachtree Street, N.E., Atlanta.

Dr. Ed. F. Fincher, Jr., announces the removal of his office to the Medical Arts Building, 384 Peachtree Street, N.E., Atlanta.

Dr. J. L. Howell, Atlanta, has been appointed a member of the State Examining Board. The "State Examining Board" is the official designation of the Board formerly known as the "State Board of Medical Examiners". Dr. Howell succeeds Dr. A. F. White, Flovilla, deceased. He is also Captain of the 114 Ambulance Company, 105 Medical Regiment, 30th Division of the National Guard of Georgia.

Dr. O. D. King, formerly of Carrollton, has removed to Bremen, and will continue the practice of medicine at the latter location.

Dr. L. C. Fisher, Atlanta, has offered an award of \$100.00 in gold each year, beginning in 1925, to the member of the Fulton County Medical Society who accomplishes the most worthy research work, also to the member who writes the best medical paper. The recipients of the awards are as follows: 1925, Dr. M. Hines Roberts, winner of both prizes; 1926, Dr. Dan C. Elkin, winner of both prizes; 1929, Dr. L. Minor Blackford, winner of the prize for the best paper; 1930, Dr. John B. Cross, winner of the prize for the best paper, and Dr. Jack C. Norris, winner of the prize for research work; 1931, Dr. Mark S. Dougherty, winner of the prize for the best paper, and Dr. Lee Bivings, winner of the prize for research.

The Randolph County Medical Society met at Cuthbert on February 4th. Dr. W. W. Crook, Cuthbert, and Dr. E. C. McCurdy, Shellman, gave case reports.

Dr. Cleveland Thompson, Millen, resident physician of the Millen Hospital, entertained the doctors of Jenkins and adjacent counties on January 19th. Important cases treated at the hospital during the month were discussed at a round table conference.

The Georgia Medical Society (Chatham County) held its regular meeting on January 26th. Dr. H. F. Sharp-ley, Jr., Savannah, read a paper entitled "The Method of Precision in the Diagnosis of Early Pregnancy"; Dr. D. B. Edwards, Savannah, gave a case report on "Hodgkin's Disease". Discussions were led by Dr. C. F. Holton and Dr. J. K. Train, both of Savannah.

Dr. O. D. Lennard, formerly of Sandersville, and on the staff of the Rawling's Sanitarium, has moved to Tennille and will engage in private practice.

The Fulton County Medical Society met at the Academy of Medicine, Atlanta, on February 4th. Dr. Mark S. Dougherty gave a case report on "Erysipelas Recurrens"; Dr. O. O. Fanning, case report "Twins, One Normal, the Other Monstrosity"; Dr. J. L. Campbell gave a clinical talk "Cancer Clinics"; Dr. Olin S. Cofer read a paper entitled "Treatment of Prolapse of the Uterus". Discussions were led by Dr. O. H. Matthews, Dr. S. T. Barnett, and Dr. G. W. Quillian.

The Ware County Medical Society will meet at Folkston on February 3rd. Dr. Albert Fleming and Dr. A. D. Williams, both of Folkston, entertained the members at a shad supper. This is one of the delightful annual events of the society. Dr. M. E. Winchester, of the Georgia Department of Public Health, gave an outline of the public health work for Georgia in 1932.

The American College of Physicians, by its Executive Secretary, E. R. Loveland, Philadelphia, announces the selection of Dr. O. T. Avery of the hospital of Rockefeller Institute, New York City, as the recipient of the John Phillips Memorial Prize for 1932. This prize is an annual award by the College in the sum of \$1,500 and is given to perpetuate in the College the memory of Dr. John Phillips, of Cleveland, a man of outstanding accomplishments as investigator, teacher, and physician, for many years a member of the Board of Regents.

The Troup County Medical Society met at La-Grange on January 28th. The members were entertained at a banquet in a local hotel. Plans were discussed and formulated for the year's work and a number of scientific papers were read by its members.

OBITUARY

Dr. Daniel Tillett Henderson, Macon; member; Emory University School of Medicine, Emory University, 1914; aged 45; died suddenly at his home in Stanislaus Circle, on December 31, 1931. He was born and reared in Dooly County. After receiving his early education in his home community, he graduated from Mercer University, Macon. Dr. Henderson had taken post graduate work in diseases of the eye, ear, nose, and throat at Johns Hopkins University School of Medicine, Baltimore. Dr. Henderson was a member of the Bibb County Medical Society, Sixth District Medical Society, American Medical Association, Masons, Shriners, and the Tattnell Square Baptist church. Surviving him are his widow, one son, D. T. Henderson, Jr.; his mother, and two brothers.

Dr. Robert L. Neal, Hapeville; Southern Medical College, Atlanta, 1886; aged 67; died at his home on January 1, 1932. He was in the United States Public Health Service during the World War, formerly in charge of the Veterans' Hospital on Peachtree Road, Atlanta. Dr. Neal began the practice of medicine in Buford and later practiced in Gainesville. He was held in high esteem by a large number of friends. Surviving him are his widow, two brothers and four sisters.

Dr. David Edwin McMaster, Tennille; member; University of Georgia Medical Department, Augusta, 1886; aged 73; died at a private sanitarium at Washington on January 8, 1932. He had been actively engaged in the practice of medicine in Washington and adjoining counties for more than forty years and was president of the Tennille Banking Company for thirty-two years. Dr. McMaster was widely known over the

state and had been prominent in civic, social, and religious affairs. He was a member of the Washington County Medical Society, American Medical Association, Shrine, and the Methodist church. Surviving him are his widow, and two sons, David McMaster, Sandersville; and Chandler McMaster, student at the Georgia Military College, Milledgeville. Funeral services were conducted from the Tennille Methodist church.

Dr. William Edward Campbell, Sr., Atlanta; New York University Medical College, New York City, 1888; aged 67; died at the home of his son, Dr. W. E. Campbell, Jr., on January 7, 1932. He was a native of South Carolina. Dr. Campbell moved to Atlanta in 1894, six years after receiving his degree in medicine. He was at one time on the faculty of the Atlanta Medical College, served as a member on the staffs of Grady Hospital and the Georgia Baptist Hospital, and took an active part in civic and social organizations. Dr. Campbell was a member of the Masonic lodge, Shrine, and the Second Baptist church. Surviving him are his widow, two sons, Dr. W. E. Campbell, Jr., Atlanta; and James B. Campbell, Atlanta; one daughter, Mrs. H. Clark Bruner, Buffalo, N. Y.; one sister, Mrs. Dora Brezealle, Belton, S. C. Funeral services were conducted from the Spring Hill Baptist church by Rev. Ryland Knight. Interment was in the city cemetery of Belton, S. C.

Dr. Annie Laurie Sawyer, Atlanta; member; Woman's Medical College of Pennsylvania, Philadelphia, 1900; aged 66; died at her apartment in the Atlanta-Biltmore Hotel on January 20, 1932. She was born in Talladega, Alabama. After attending Shorter College in Rome, she began the study of medicine. Dr. Sawyer had been engaged in active practice in Atlanta for almost thirty years. She was at one time associated with Dr. Floyd McRae in the practice of medicine. Her practice was limited to obstetrics and gynecology. She was highly esteemed by general practitioners and surgeons of this section, and won a wide reputation as a physician. Dr. Sawyer was a member of the Fulton County Medical Society, the American Medical Association, and St. Luke's Episcopal church. Surviving her are two brothers, Alexander Sawyer, Lima, Ohio; and R. L. Sawyer, Nashville, Tenn.; two sisters, Miss Sidney Sawyer, Atlanta; and Miss Isabel Sawyer, Washington, D. C. Funeral services were conducted from the Spring Hill chapel and interment was in West View cemetery. The members of the Fulton County Medical Society acted as an honorary escort.

Dr. E. C. Perkins, Alma; University of Georgia Medical Department, Augusta, 1902; died at his home on January 19, 1932. He was a prominent physician of southeast Georgia and had practiced medicine in his home town and community for thirty years. Surviving him are his widow and three daughters, Mrs. H. T. Lee, Misses Regina and Dora Ida Perkins, all of Alma. Funeral services were conducted from the First Methodist church and interment in Rose Hill cemetery.

SAVANNAH

Eighty-Third Annual Session of Association

May 17, 18, 19, 20

BEAUTIFUL PLACES FOR RECREATION

Savannah Beach—On Tybee Island, 18 miles from Chamber of Commerce.*Isle of Hope*—On Skidaway Road, 9 miles from Chamber of Commerce.*Burnside*—13 miles from Chamber of Commerce.*Beaulieu*—11 miles from Chamber of Commerce.*Coffee Bluff*—10 miles from Chamber of Commerce.*Montgomery*—11 miles from Chamber of Commerce.*Wilmington Island*—10 miles from Chamber of Commerce.*Thunderbolt*—5 miles from Chamber of Commerce.*White Bluff*—8 miles from Chamber of Commerce.*Vernon View*—12 miles from Chamber of Commerce.

INTERESTING POINTS

The Hermitage—Ante-bellum Plantation with original slave huts—5 miles from Chamber of Commerce on Atlantic Coastal Highway, North.*Wormsloe Gardens*—Historic old Southern plantation and beautiful azalea and magnolia gardens—8 miles from Chamber of Commerce on Isle of Hope Road.*Bethesda Orphanage*—10 miles from Chamber of Commerce. Oldest orphanage in the United States, founded in 1740 by Rev. George Whitefield.*Barbee's Diamond Back Terrapin Farm*—Located at Isle of Hope—9 miles from Chamber of Commerce. Said to be the only diamond back terrapin farm in the United States.*Bonaventure Cemetery*—Between Savannah and Thunderbolt—4 miles from Chamber of Commerce. It is justly famous as one of the country's most beautiful burial grounds. About 1760 was home of Col. John Mulryne, a militant Tory. Noted for its magnificent trees and flowers.*Savannah Beach* (on Tybee Island)—18 miles from Chamber of Commerce on paved road. Beautiful beach, splendid fishing and recreational facilities.*Fort Screven*—United States Government Reservation located on Tybee Island, adjacent to Savannah Beach. United States Eighth Infantry.*National Conductors Home* (on Oatland Island)—6 miles from Chamber of Commerce on Tybee Road. National home for conductors.*Bamboo Farm*—12 miles from Chamber of Commerce on Ogeechee Road, operated by United States Government.*Municipal Air Port*—5 miles from Chamber of Commerce on the White Bluff Road. Present tract contains about 900 acres, 300 acres being developed into landing field, of which 125 have already been graded and rolled; 73.5 acres planted in grass. The present maximum width of landing field is 1,500 feet by 3,312 feet long; proposed width of landing field will be 3,000 feet by 4,300 feet. Aviation gas, oil, telephone, and telegraph at field. Surface approximately level.
—Chamber of Commerce, Savannah.

ALLERGY

Allergy is a subject that is earning greater attention from physicians these days because it appears that a number of obscure ailments may be traced to allergic conditions. Food allergy particularly is coming in for attention, since even a partial list of the manifestations of food allergy reads like a patent medicine advertisement.

Because milk is so widely used as a food, milk allergy was deemed of sufficient importance to S. M. A. Corporation for them to prepare a twenty-two page pamphlet on the subject which they are offering without charge to physicians who write for it. Quotations from authorities on the subject of allergy make up most of the material. At the back is a list of references to forty-two books and papers. This alone is interesting to any physician who wants to read up on the subject, regardless of how well informed he may be.

The pamphlet takes up such subjects as: what milk allergy is, allergic manifestations, incidence and diagnosis of food allergy, value and technique of skin tests, elimination diets, feeding suggestions, SMACO Non-Allergic Milks, etc., and makes clear that not all allergies are caused by milk and that not all food allergies are milk allergies.

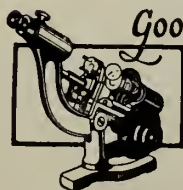
This booklet is offered free of charge to physicians who will write the S. M. A. Corporation at Cleveland, Ohio, asking for it.

BANISH EYE STRAIN—

With a Pair of Good Glasses

No one can afford NOT to give their eyes attention. The risk is too great—the penalty too severe. Stop your eye-strain now. Go to an Eye Specialist if your trouble seems dangerous. He will not prescribe glasses unless you need them. If he does recommend that you wear them, you should get the best. It is our business to make good glasses and fit them perfectly and in this manner banish eye-strain. You will appreciate our sincere trained service. Come to us for all of your optical needs.

DOCKSTADER OPTICAL CO.
16 Peachtree Street



Good looking—Perfectly fitted

Dockstader Glasses

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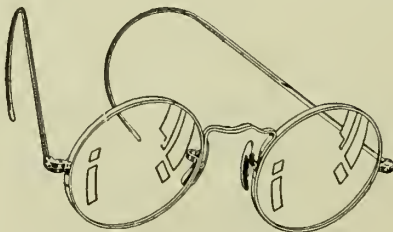
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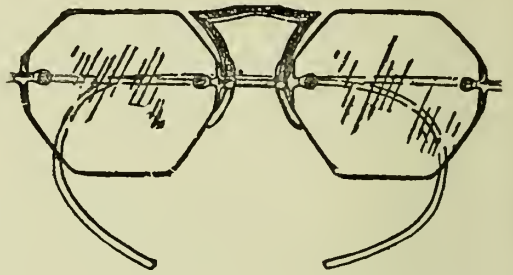
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SOME OBSERVATIONS ON SPINAL ANESTHESIA*

CHAS. H. RICHARDSON, JR., M.D.
Macon

An ideal anesthetic for an operation within the abdomen has been described as "one which effects a loss of the sensation of pain; sufficient muscular relaxation for rapid work with a minimum of trauma; which can be safely induced without distressing symptoms to the patient; is of sufficient duration; and the drug employed is not toxic to such important viscera as the heart, lungs, or kidneys".

A study of the literature which has appeared in the past few years would lead us to believe that an injection of some form of procaine hydrochloride into the subarachnoid space more nearly fills these requirements than any other method of anesthesia.

Whether this is true or not is still a matter of controversy, but it is an accepted fact that the use of this type of anesthesia has increased very rapidly in the past three years and it would seem timely to approach the problems which it presents with a careful and painstaking effort to aid in their solution.

When an anesthetic solution is injected in the immediate vicinity of the spinal roots there results a physico-chemical combination with the nerve substance with consequent modification of its function. Impulses from the periphery to the central nervous system are cut off, and vice versa. This means, of course, that not only is sensory conductivity abolished, but motor function is also interfered with. Of course the object of the procedure is to block off the sensory roots and abolish pain, but as the roots of the motor nerves are in close proximity they are naturally affected at the same time. This is unfortunate for the very important reason that

in these anterior or motor roots are the vaso-constrictor fibers which by way of the rami-communicants go to the sympathetic system, and from that system to the blood vessels of the splanchnic circulation, the thoracic vessels and the heart. Hence with the production of subarachnoid block we have an interference with these constrictor fibers with a resulting dilatation of all the splanchnic vessels and the withdrawal of large volumes of blood from the peripheral circulation, and we have the phenomenon of an individual bleeding into his own veins and the resulting anemia which occurs in the brain, the vital centers and the peripheral tissues.

The change which occurs in the circulatory system is expressed in terms of the blood-pressure apparatus, and if routine readings are taken in conjunction with subarachnoid block it is noted that in a large percentage of cases there results soon after the induction of this type of anesthesia a marked lowering of intra-arterial pressure which may become so marked that no reading can be made.

Labat, whose experience with this type of anesthesia is certainly very wide, would have us believe that this inability to measure the strength of the current does not necessarily mean that it is at low ebb, and that a system of circulation depending chiefly on gravity has been established, during which the lowest parts of the body are richest in blood. He argues that the real hazard which is produced is the danger to the vital centers in the medulla which are bathed in the peripheral circulation and that this can be entirely remedied by placing the patient and the table in the Trendelenburg position, and allowing the blood to flow by gravity from the splanchnic reservoir to the brain. He goes further and states that added efforts at resuscitation are not only unnecessary, but may be harmful.

Let us look for a moment at the other side of the picture. In some recent work on cardio-

*Read before the Medical Association of Georgia, Atlanta, Ga., May 15, 1931.

vascular reflexes at the Mayo Clinic, Markowitz and Mann have very clearly shown the importance of maintaining suitable intra-arterial pressure. In a study of the physiology of cardiac resuscitation, they point out that the prime essential in resuscitating a dead heart is to provide suitable intra-coronary pressure and that in order to resuscitate a dog that has been asphyxiated to death it is necessary to give a rapid intra-arterial infusion.

They have further summarized the importance of suitable intra-arterial pressure as follows:

"First, the heart fails to get adequate circulation through the coronary system when the intra-arterial pressure is low; second, the centers in the medulla are easily injured by the deficient flow of blood which results from low arterial pressure; third, it has been shown rather recently that the permeability of the capillaries is markedly increased by asphyxia of these structures, and when the arterial blood pressure is low the amount of blood circulating through the tissues each minute is considerably less than it should be, and the tissues become asphyxiated.

"The low blood pressure is therefore serious to the heart, to the central nervous system, and to the tissues, and in each of these the tendency of low blood pressure is to start a vicious circle."

This, I believe you will agree, is the more rational viewpoint, and the one that will stand the test of analytical thought.

In the light of these facts the problem which spinal anesthesia presents today is one of lowered intra-arterial tension and its solution must come in some form of adequate stabilization of the circulation if it is to be regarded as a safe anesthetic, and one of choice in routine operative work.

With this problem in mind during the past year the author has attempted to keep careful records of all cases in which spinal anesthesia was used in an effort to arrive at some conclusions which might have a definite bearing on its solution and attempt to standardize a technique which would tend at least to avert a lowered intra-arterial tension and successfully correct it once it had occurred.

In order that results might be as uniform as possible the choice of a drug was made and a method of administration was standardized. Neocaine, a French preparation of novocaine in sterile ampules, was selected and dissolved in 3 c.c. of the patient's spinal fluid, and re-injected with or without barbotage, depending on the height of the anesthesia desired. The injection was made in the second or third lumbar interspace, with the patient on the left side in the horizontal position when possible. Immediately on withdrawal of the needle, the head of the table was lowered and the patient placed in the Trendelenburg position and kept there throughout the operation, and upon his return to bed the foot of the bed was elevated for six hours.

Fifty milligrams of ephedrine sulphate was given just before operation, in most instances, but it was discontinued for awhile and then resumed. Routine blood-pressure readings were made before injection and at ten-minute intervals throughout the operation and at the conclusion and in some instances throughout the postoperative reaction.

The amount of drug used ranged from 100 to 150 milligrams of neocaine. In no case was any attempt made to secure anesthesia above the diaphragm. In all cases the anesthesia was entirely satisfactory and suitable for the procedure attempted; in fact, it offered a distinct advantage from the operator's standpoint, and was selected only in such cases as it seemed best indicated.

The total number of cases studied was thirty-two, and while relatively a small number, yet large enough to indicate what would probably happen in a larger similar series. Eighteen males and fourteen females were studied, the youngest being nine years of age, the oldest 91, the average age 41. Twenty-four patients received fifty milligrams of ephedrine sulphate before operation, and eight received none.

A larger percentage of operations was done for intestinal obstruction than for any other condition. The average fall in systolic blood pressure was thirty millimeters of mercury, the greatest being sixty-seven, and the lowest four. In three cases there was no fall, and in one there was an actual rise in blood pressure.

Fourteen cases received no stimulants or other medication for lowered intra-arterial tension as none seemed indicated. Four patients received an injection of adrenalin chloride on the table, and in each*the result seemed unsatisfactory.

Twelve patients were given 500 c.c. of 10 per cent glucose in saline intravenously at the lowest recorded point of blood pressure fall, and in eleven the response was immediate and a prompt return to a satisfactory and safe level was established and maintained. In one case of mesenteric thrombosis in a very poor risk there was no response. In one case the systolic blood pressure rose from thirty to one hundred millimeters of mercury, in another from forty-eight to ninety, and in still another from seventy to one hundred and ninety.

In the light of these findings it was evident that the most satisfactory and certain method of correcting lowered intra-arterial pressure which followed the injection of an anesthetic dose of novocaine into the sub-arachnoid space was the introduction into the venous system of a solution consisting of 500 c.c. of a 10 per cent solution of glucose in saline. This was practically always followed by a prompt return of the intra-arterial tension to a safe level with an evident marked improvement in the general condition of the patient, and in no instance was it necessary to resort to any other form of stimulation or restoration. There were no deaths either directly or remotely due to the anesthetic in this series and no after-effects that could be determined.

It then seemed worth while to determine whether this fall in blood pressure could be averted and the patient carried through the operative procedure with the intra-arterial tension at a safe level by reversing the procedure and giving an infusion of glucose in saline into the veins prior to induction of spinal block.

Five cases were chosen for this study, one a normal young adult with a hernia for repair, and four poor risks with more serious surgical conditions, as it is upon this latter class that the choice of spinal anesthesia falls, and also as it is admittedly more difficult to maintain intra-arterial tension in this class.

The same technique was followed except that in each case an infusion of 500 c.c. of 10 per cent glucose in saline was introduced into the veins fifteen minutes before the induction of anesthesia.

The findings in these five cases will be recited in detail:

Case 1—I. W., white female, age 26. Exploratory Laparotomy for gunshot wounds of stomach and liver. The condition before operation was poor. Blood pressure before operation was 90-60. Five hundred c.c. of five per cent glucose in saline was given before induction of spinal block, 50 Mg. of ephedrine sulphate was given as routine, and 150 Mg. of neocaine was introduced into third lumbar space. In spite of extensive hemorrhage and shock the blood pressure rose to 100-60 and remained there throughout the operation, in which two perforations of the stomach were closed and a pack placed in a wound of the liver. The patient left the table in fair condition.

Case 2—C. S., colored male, age 28. Herniotomy for Inguinal Hernia. Condition before operation good. Blood pressure 130-78. Five hundred c.c. of 10 per cent glucose in saline given before block. The blood pressure rose to 136-68. 150 Mg. of neocaine introduced into third lumbar space. Blood pressure fell to 110-68, then rose to 118-82, then fell to 108-82, then rose to 112-80, then 136-78, where it remained. Patient left table in good condition.

Case 3—A. A., colored female, age 15. Laparotomy for Tb. Peritonitis. Condition before operation fair. Blood pressure 94-54. Five hundred c.c. of 10 per cent glucose in saline were given and the blood pressure rose to 114-54. Then 100 Mg. of neocaine was introduced into third lumbar space and the blood pressure fell to 90-60, then 94-64, then 90-62, then 80-42, then 86-58, then 94-62, then 96-66. Patient left table in good condition.

Case 4—W. B., white male, age 43. Laparotomy for suspected malignancy of stomach. Condition before operation fair. Blood pressure 114-68. Five hundred c.c. of 10 per cent glucose in saline given. The blood pressure rose to 130-68, and 120 Mg. of neocaine was introduced into third lumbar space. The blood pressure fell to 118-56, then 110-66, then 112-72, then 102-58, then 86-54, then 80-46, then 84-50, then 88-56, then 92-56, then 96-56, then 104-70. Patient left table in fair condition.

Case 5—I. H., white female, age 55. Laparotomy for intestinal obstruction. Condition before operation fair. Blood pressure 118-92. Five hundred c.c. of 10 per cent glucose in saline given. The blood pressure rose to 122-70. Then 120 Mg. of neocaine given in third lumbar space, the blood pressure fell to 120-88, 120-86, 118-74, 126-74, 124-74, 98-78, 108-70, 104-65, 98-68, 98-66, 104-70. Patient left table in good condition.

You will note that, while we have not

been able to entirely avert the fall of ten or twenty points in the systolic blood pressure, which seems inevitable with the paralysis of the vasoconstrictor fibers of the splanchnic system and which is necessarily a part of subarachnoid block, yet we have been able to maintain a suitable and safe intra-arterial pressure in each case. You will note further that the diastolic pressure, which is most important since it marks the tide of life, was subjected to very little change in all cases.

Summary

1. Subarachnoid block approaches the ideal in anesthesia.

2. Its hazard lies in its effect on intra-arterial pressure.

3. The problem which it presents is the proper stabilization of the circulation.

4. The method outlined appears to be of value and we trust will stimulate interest in its further solution.

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DISCUSSION ON PAPER OF DR. RICHARDSON

Dr. George Fuller, Atlanta, Ga.—I have enjoyed Dr. Richardson's paper. He always reads good papers; I have never heard one from him that was not excellent. You noticed that the observations in this paper dealt chiefly with the blood pressure study of spinal anesthesia. This is a very important part of spinal anesthesia, and it has kept many surgeons from using it for many years. Since the adoption of ephedrine and other agents, this fear has been somewhat dispelled in the minds of most men who use this form of anesthesia. I have been very much afraid of the drop in blood pressure and everything that happens. In the first spinal anesthetic I used I was looking out for the blood pressure, and when it dropped to 90 and then to 80 I feared the patient was going to die, but I have learned that this drop is not to be feared so much as many men believe. I have noted that if a patient begins to vomit and you take the blood pressure then you find it has dropped a great deal in every case. I believe a patient under a general anesthetic at that time shows a marked drop in blood pressure. This comes largely from the shock of the operation. In operations upon the kidneys, when you are manipulating a kidney, the blood pressure drops, and the patient becomes nauseated. When the manipulation is stopped the blood pressure rises.

There are many things which are noticeable in regard to the anesthetic. When you mention it to the patient, for instance, particularly female patients, they say they

would rather be put to sleep. What prompts them to say that? First, because to begin with, they will see the operating room and will see blood and they have always felt that they could not stand it. In the second place, it is hard for them to believe that anyone can open their abdomen without occasioning some pain. As a rule, if you bear with these individuals they will consent to the anesthetic, but if you do not explain it to them carefully they will insist on being put to sleep. The way I usually get around this particular point is to tell them that if they wish to be put to sleep, we will place the gas machine right at their head, and when they decide that they want to be unconscious we can start the gas any moment. This usually satisfies them, and the operation is finished before they realize it and they never call for a general anesthetic.

Another thing I have noticed is that while most of them will turn you down when you first propose it, practically 100 per cent will tell you after the operation that they would prefer to have a spinal anesthetic if it was necessary to have another operative procedure. I think this point should be kept in mind. If the patients like it and it is safe for them I think we should like it. There is no question that it makes surgery much easier. A laparotomy under general anesthesia and under spinal anesthesia are two entirely different procedures. It is hard to realize how different until you have used both. I think we should all protect this anesthetic and develop it and have the benefit of its use.

Dr. Frank K. Boland, Atlanta, Ga.—This is the first time I have ever risen to discuss the question of spinal anesthesia. Until recently I have been merely a spectator, but I wish to admit now that I have been converted. I think it is the younger men who have taken this up and the older men have been slow about it. I think if you wish to be classed among the younger generation you should take up spinal anesthesia. It takes thirty to forty years for anything like this to get imbedded in the minds of the profession. I know it took thirty years for many men to believe in antiseptic surgery.

Doctor Richardson has been hammering on this subject for several years and I wish to thank him for it. This is not new. I recall back in 1902, when I was an interne, Doctor Martin used the first spinal anesthetic that was used in Baltimore. Why he did not follow it up I do not know. He did use it that one time as a spectacular thing, and then went on using the general anesthetics. I think if any of you have tried to take out a gall-bladder under spinal anesthesia you will not want to do it any other way. Of course, it is not free from danger any more than any other anesthetic is free from danger. Some time ago a patient here in Atlanta had a hernia repair under a general anesthetic and developed pneumonia. The hernia recurred and recently he had to have it repaired again. That time it was repaired under spinal anesthesia, and again he developed pneumonia. There is no method by which we invade the spinal canal that can be said to be devoid of danger, but I think as we go along more and more

men will take up the use of spinal anesthesia. I feel convinced it has come to stay.

Dr. William H. Myers, Savannah, Ga.—Contrary to Doctor Boland's remarks about the young men taking this method up, I wish to state that I have been using it for some time, with splendid results. I was rather timid about starting it, but with the assistance of some of the younger men took it up and have been using it almost exclusively for some time.

In the case of patients with bad hearts and other disabilities, who need to have hemorrhoids removed, we use 25 mgs. with very happy results. The theory is that the sensory nerves are less well protected than the motor nerves and that sensation is abolished, the motor power left unimpaired. In many instances the patients are able to walk back to their rooms without any inconvenience. Some of these patients maintain that they never have any pain, but I think sometimes the pleasure at the result obtained makes them so happy that they will not admit pain.

Dr. C. W. Roberts, Atlanta, Ga.—I think there is an old saying to the effect that one should not be the first to adopt the new, nor yet the last to lay the old aside. This problem of spinal anesthesia brings out the necessity of further united thinking and co-operative practice. I believe this subject re-emphasizes the fact that all new procedures should be taken up with caution and practiced only after one has taken the time to become familiar with the principles and technic underlying their use. If spinal anesthesia is to occupy the place it should in one's practice, we must first understand its effects on physiologic processes or, in the absence of such knowledge, employ those who have qualified as specialists in this form of anesthesia. Here in Atlanta, like Doctor Boland,⁹ I think we are all beginning to become "spinal-anesthesia-minded", but the older group is a little timid about it, being afraid that we may not be able to hit the spinal canal perhaps, or conscious of our lack of the special training required. Our alternative has been to call upon someone who is trained to administer it. This eventuates in the use of an anesthetist who never sees the patient until he is called to function. This is wrong. In order for him to be able to answer the question as to whether the case is suitable for spinal anesthesia, he should be as familiar with the history and physical make-up of the patient as is the surgeon. I have had some unsatisfactory experience, and at present am not as enthusiastic as some who have expressed themselves in favor of adopting the method as the one of choice. My thought is that here is a most helpful and useful form of anesthetic, but it brings with it things that are good and things that are extremely hazardous. If it is to continue to occupy the place it now has in the profession, we must develop men who will be willing to assume the responsibility of its administration, and relieve the general surgeon of the necessity of assuming the responsibility for the patient. Just as Doctor Boyd brought out yesterday, this again introduces the necessity of unit thinking and unit work, if the patient is

to receive the maximum service to which, all agree, he is entitled.

Dr. T. C. Davison, Atlanta, Ga.—I think this paper has been amply discussed, but I wish to thank Doctor Boland for the compliment he has paid me, for he puts me in the group of young men. I am a convert to spinal anesthesia. I watched this procedure for a year or more at Grady Hospital before I would consent to use it. I do not believe in discarding the old and tried methods for the new until they are proved to be good, but I am convinced that spinal anesthesia is here to stay. There is nothing pertaining to surgical procedure that is not questioned—whether to take out a gallbladder or drain it, whether to take out tonsils or leave them, there is always controversy about something, and spinal anesthesia is just another of those controversies. Spinal anesthesia is not without danger; neither is ether, gas or any other anesthetic we use. I have had several deaths on the operating table in the past 25 years, but none of them occurred as the result of spinal anesthesia. Where is there a surgeon who has not seen serious complications following the administration of ether? I think it a mistake to tell any patient that there is no danger in an operation. There is also danger in riding down Peachtree Street at forty miles an hour, but we all do it; we have to take risks.

No one has, as yet, had a sufficiently large series of cases to secure statistics that are worth while, but I wish to read a few lines from a medical journal that I saw recently: "In the discussion of the value of spinal anesthesia before the Society of Surgery in Paris, in 1923-1924, 20,267 cases were reviewed, in which this type of anesthesia was used, with ten deaths." Now that is rather a large series of cases, and we have to tabulate a large series to get statistics that are worth while. As one of the discussants stated, it is a question not of the procedure, but of who is behind it. I would not attempt to give a spinal anesthetic myself if I could get someone to do it for me, for it is not my job. Neither would I give ether if I could avoid it. I think the person behind the gun is what accounts for the poor results. Doctor Myers spoke of letting a patient walk to his room after an operation for hemorrhoids. I would not do that for I consider it dangerous for the solution is light and may disseminate too far.

Dr. Archibald Smith, Atlanta, Ga.—In 1900 and 1901, while an interne at Kings County Hospital in New York, it was my privilege to have some fairly early experience with spinal anesthesia. During my surgical service there were some fifty spinal anesthetics given, about one-third of which were administered by myself. At the time we did not have the newer anesthetics, so had to depend on cocaine altogether and the needles were large and clumsy, nevertheless, I have seen as pretty anesthetics with a fourth grain of cocaine in the spinal canal as with any form of anesthetic, although the injection occasionally failed to produce anesthesia and was at times accompanied by nausea or headache. During my service, one-fourth grain of cocaine was the maximum dose for intra-spinal injection.

tion, and nothing was used in the skin. This seemed a fairly safe dose and no fatalities or alarming symptoms occurred during that service.

The man who followed me reported using a grain or more of cocaine for skin and spinal injection. He did not report any fatalities, but that was a dangerous dose, and if he had none, I think it was due more to the intervention of Providence than to good judgment on his part.

The fact of cocaine being less safe and not acting so well as the newer anesthetics, I think accounts for spinal anesthesia not coming forward any more at that time, but even those early experiences indicate that it has some definite advantages and I believe it has a great future. I think we have much to learn about it, and while I do not think it universally applicable, I am convinced that it can be used to great advantage in many cases.

Dr. C. H. Richardson, Jr., Macon, Ga. (closing)—I am very grateful for the discussion. It was my idea neither to advocate nor condemn spinal anesthesia. That is no longer necessary, but when an anesthetic comes to such widespread use as spinal anesthesia has attained at present, in our widespread enthusiasm we are apt to forget that it is not without some hazard. In order to surround our patients with the safeguards to which they are entitled, it is a question if we should not make further effort to master the procedure, and work out the problems it presents. My presentation of a few cases in which I have attempted to prevent the fall in blood pressure are not sufficient to prove anything, but if I can stimulate your interest in the subject possibly some man will work out the solution properly.

ANOTHER ONE FOR THE DOCTORS

The medical profession was warned last week for the second time this year, that unless fees go down, the State will take over the administration of its work. This time the warning came from Doctor Wynne, the health commissioner of New York City. He advocated the organization of a centralized system for taking care of a large number of patients at small cost. As we said before, when this matter came up, we have an utter horror of state medicine; if it came in, we think we should go down to the undertaker and be measured right away, and get it over with. It is also clear to us that the rank and file of the profession ought to live and live well, and that none too many do. Yet we do not see how medicine could be privately or professionally institutionalized without running in into all the risks and temptations that would beset state medicine. We wish that there were some way out of this that would be fair and honorable all round. We cannot suggest one, but we hope the physicians will find one; though we are aware that a pious hope is no great contribution in a matter of such pressing and extreme importance. It is all we have to contribute, however, so we drop it in prayerfully, like the widow with her useless mite.—*The New Freeman*—A. M. A. Bulletin, January, 1932.

PROGRESS IN PSYCHIATRY*

NEWDIGATE M. OWENSBY, M.D.
Atlanta

In reviewing the history and progress of psychiatry we find that it furnishes one of the most interesting studies of the human race. It is a story of a long and hard struggle which humanity and science have waged against ignorance, superstition, bigotry, and intolerance to overcome ancient prejudices in order to secure proper care and treatment for the mentally ill.

Mental disease is as old as the human race, and its earliest history is that of disease in general. During the Aesculapian period, about 860 B. C., the mentally ill were carried to the Temples of Saturn in Egypt and Aesculapius in Greece to be relieved of their torments by the priests who made a study of their disease and applied appropriate measures to alleviate their sufferings. The Temples were, for the most part, located in the mountains or other healthful places near medicinal springs. The treatment of these people included kindness, suggestion, recreation, and music, with particular stress being placed upon music and dancing. All of these are recognized as being some of the best features of our present-day method of treatment.

Later, Hippocrates declared it to be his belief that all such disorders were due to a disturbance of the brain! A much clearer conception than that which existed for several centuries after the advent of the Christian era, and even up to the past few decades. Unfortunately, we have no record of the treatment prescribed by Hippocrates, but it is reasonable to suppose that it was superior to that of his predecessors.

After the coming of the Christian era, and in the dense ignorance of the Middle Ages, whatever progress had been made in the care and treatment of the mentally ill during the Aesculapian and Hippocratic era and the following four centuries, was completely lost and no torture was too inhuman to be countenanced as a service to society. The man or woman who was so unfortunate as to be

*Read before the Medical Association of Georgia, Atlanta, Ga., May 14, 1931.

afflicted with a mental disease was regarded as possessing an evil spirit and had little chance of life itself, and such a thing as amelioration of his sufferings would have been regarded as high treason to the Church and State, if not actual complicity with the devil. A few, however, presented delusions of a religious or political nature and they were regarded as supernatural and greatly esteemed.

In 1537 Henry VIII of England granted to the corporation of London a house on Bishopgate Street for the housing of fifty "lunatics". This building was known as the Bethlehem Asylum, for some reason, perhaps of a religious nature, but the treatment accorded its inmates was more of a demoniacal nature, and the name was soon corrupted into "Bedlam". After the opening of Bedlam Asylum, many other houses of detention were established throughout England for the purpose of housing the mentally decrepit, not because of any feeling of pity or compassion for these unfortunates, but because of public comfort. The treatment accorded them in these institutions was for the most part too horrible to describe.

In France the same condition existed as in England until 1792, when Phillipe Pinel conceived the idea or theory that the mentally ill were sick people who were badly in need of medical treatment, rather than punishment, and he speedily set forth to correct the existing conditions. He abolished all restraint and the many inhuman measures employed at the time upon these unfortunates. He demonstrated conclusively that when kindness was substituted for brutal authority the management of these patients became far less difficult.

Another French physician, Jean Gaspard Itard, in 1800 disclosed the first scientific interest in the treatment of the mentally ill—idiots, as they were then termed—and while he was not particularly successful in his attempts in teaching them what he felt they were capable of learning, his efforts were productive in arousing a certain interest which later led to further study of this problem.

In America, in 1709, the members of the Society of Friends in Philadelphia put forth efforts to house the mentally ill in their community, but no definite results were realized

for nearly forty years, when Dr. Thomas Bond revived public interest in this and, enlisting the aid of Benjamin Franklin, who procured a charter from the House of Representatives of the Province of Pennsylvania, was finally successful in erecting the Pennsylvania Hospital.

In 1768 Virginia opened the first hospital in America to be used exclusively for the mentally ill; however, the care was more custodial than medical. New York City built its hospital and received the first patients there in 1791. In 1798 construction of an institution for the care of the indigent sick and the mentally ill was erected on the present site of the Johns Hopkins Hospital in Baltimore. And 1811 to 1855 saw retreats and asylums built in Frankfort, Pa.; Somerville, Mass.; Hartford, Conn.; Worcester, Mass., and New York City, largely through the efforts of that saintly little nurse and woman, Dorothea Lynd Dix. Little consideration, other than custodial care, was given the patients in these institutions, and it was provided with the minimum attention, labor, and expense.

During the nineteenth century other States followed the examples set by Pennsylvania, New York, Virginia, Massachusetts, Connecticut, and Maryland, but no appreciable progress was made in the treatment and care of the mentally ill until the latter part of that century, except perhaps in a limited number of isolated instances.

The greatest interest and progress in the institutional care and treatment of the mentally ill has come in the twentieth century, particularly since the publication of Clifford Beers' history-making book, "The Mind That Found Itself". As a result of this work the National Committee of Mental Hygiene was formed, and through its influence and efforts the custodial and inhuman care of the mentally ill is being rapidly discarded in favor of scientific treatment in hospitals that have been thoughtfully planned and especially equipped for this particular type of patient. The objectionable term, "asylum", has been discarded for "State Hospital", and only the most ignorant people today refer to the mentally ill as crazy or lunatics. Intelli-

gent people recognize the unfortunate condition of these people as being a mental illness, and the psychiatrist is regarded as a doctor of mental diseases, and is not referred to as a "crazy doctor", except by those too ignorant to know better, or those viciously inclined.

In fact, all educated people have come to realize that anyone may become mentally ill, which in itself may be regarded as a step in the progress of psychiatry. Whatever stigma formerly attached to mental illness is rapidly becoming as rare as the stigma formerly attached to those afflicted with tuberculosis. Again, there are few American families who do not have some member who is mentally sick, and anyone speaking disparagingly of this disease may unknowingly incur the displeasure of some person whose friendship is valued.

"Insanity" is a legal term and has no place in medical nomenclature.

It has been the writer's good fortune to be a most interested observer, as well as to take an actual part, in the progress made by psychiatry during the past twenty-five years. He has seen the inhuman method of treatment replaced by humane and scientific measures. He has seen and aided in the abolishment of the almshouse care in one great State, with modern hospitalization taking its place. He has seen psychiatry progress and become more widespread each year until psychoses are only a relatively small part of the duties of a psychiatrist. Amplifying this statement, the modern psychiatrist must necessarily be an exceptionally well-trained diagnostician, and his knowledge of the effects of the emotions on the functionings of the various organs of the body makes him even more proficient than the diagnostician who lacks this knowledge. Sir Maurice Craig has recently stated that "disturbed emotion is one of the commonest causes of ill health in all periods of life. In childhood it may give rise to acidosis, with all of its devastating effects; therapeutic treatment may have been helpful, but complete recovery may be delayed until the underlying cause of unrest is removed. So again with conditions such as general debility and other conditions too numerous to mention. How often does one come across the patient

upon whom tonics and the like have no beneficial effects, because the underlying mental cause of the ill health had neither been looked for nor discovered, and yet when such had been disclosed and dealt with, the general health quickly was restored. Children, who for one reason or another, are misfits in a standard school life may show their maladaptation by physical or mental symptoms. The child may lose weight, sleep badly, or suffer from sickness or other bodily symptoms, all of which may be remedied by finding out and removing some disturbing influence. What is true of early life is equally true of later life. Emotional shock is still, and always will be, one of the dominating factors in producing ill health".

Again, the *modern* psychiatrist is an excellent neurologist, though the neurologist seldom, if ever, has any deep knowledge of psychiatry. It took the World War to make the profession realize this, and the term, "Neuropsychiatrist", is threatening to replace the term, "Psychiatrist". The very excellent work done with nervous and mental cases by the neuropsychiatrists of the veterans' bureaus and hospitals will substantiate this statement.

The larger universities and public school systems recognize the importance of psychiatric work, and they have their students under the observation of a competent psychiatrist and psychiatric social workers. Many cases of maladjustment, nervous or mental breakdowns, and suicides have been prevented as a result of this. Great department stores are following the example set by Macy's in New York City, and are having their employees given a neuropsychiatric examination frequently. Many financial and industrial institutions have realized the benefits derived by having neuropsychiatric examinations made of their personnel, and others will follow. Courts dealing with juvenile delinquents, as well as those trying criminals, are appointing psychiatrists to examine their charges. Many States have commissioners of mental health, and others are preparing to follow.

Governor Alfred E. Smith recommended that the New York legislature make psychiatric examinations obligatory in all criminal

cases, and that the judges follow the recommendations of the examiner. President Hoover signed a bill on June 13th last, establishing a Division of Mental Hygiene in the office of the Surgeon-General of the Bureau of Public Health, and he authorized the Surgeon-General to make studies and investigations of the causes, prevalence, and treatment of nervous and mental disease. The fact that the President and the Congress of the United States recognize that these diseases are a problem of national health indicates the necessity for an awakening of the entire medical profession to a better understanding of psychiatry and its far-reaching activities. Efforts for a general awakening of the medical profession were made at the Detroit meeting of the American Medical Association, when resolutions were passed, calling attention to mental disorders and stating that mental hygiene constituted one of the most serious situations with which scientific medicine is concerned. The Johns Hopkins Medical School has had a psychiatric clinic for many years to instruct its students; the great Columbia Medical center in New York City erected a very large building for psychopathic cases to be used as clinics in the instructions of their students. Other medical centers and hospitals connected with teaching units have either followed or are preparing to establish psychiatric wards and clinics.

This brief resume gives you some idea of the progress and the ever-increasing activities of that particular field of medicine known as psychiatry. However, despite the wonderful strides made in psychiatry and the ever-increasing number of modern hospitals being erected especially for this type of illness, there are over a half million psychotic patients in private institutions, homes, or walking the streets. Many of these are awaiting a vacancy in some State or government hospital in order that they may receive proper care and treatment. Should we include the mentally retarded, epileptics, personality changes, peculiarities of behavior, delinquents, nervous and mental instabilities, hysterias, neuroses and psychoneuroses, and all other conditions which properly belong to psychiatry, there would doubtless be ten million or more pa-

tients who are sadly in need of a better understanding and psychiatric treatment.

Psychiatry has progressed more in the twentieth century than in all of the other centuries together; the activities are becoming more widespread each year and many valuable investigations are constantly being conducted to improve our knowledge of this subject, as well as to prevent the tremendous toll being taken from our population each year by the ravages of mental ills.

Since the future progress of scientific medicine, and health and happiness of the generations to come, depend upon mental medicine, all psychiatrists earnestly hope that members of the medical profession will give us their cooperation by gaining a better understanding of psychiatry in order that our posterity may benefit.

DISCUSSION ON PAPER OF DOCTOR OWENSBY

Dr. George L. Echols, Milledgeville, Ga.—I wish to take occasion to thank Doctor Owensby for the paper he has presented. There is not much to be said, for he has covered the field very well. We must keep in mind that modern psychiatry is one of the young medical sciences. I have been in the work for twenty-two years and have had opportunity to see the changed attitude toward mental diseases. Back in the old days, mental patients were looked upon as being insane, crazy, or "looney". Now people in general are beginning to recognize that there is definite mental disease for which there is definite treatment, and that we can accomplish just as much as can be accomplished in other diseases, physical, neurological or otherwise.

Another great progress in the state institutions in my time has been that of training nurses and training attendants toward the proper attitude in handling these patients, teaching them how to approach the patients, and what to do in order to bring about mental recovery. I have lived to see the time when the strait-jacket, the sleeve aprons, and various other forms of restraint have been eliminated, and the patients now react much better.

Another thing has been the introduction not only in the medical schools of courses in psychiatry, but in the regular departments of the universities, which are now putting on courses in abnormal psychology, and in that they include the study of mental disease. Doctor Owensby mentioned the New York Psychiatric Institute and other psychiatric hospitals that have been built in our time, where young men can go and get a background and a working knowledge of mental diseases. We need to go still further, back into the child life, and learn more of the etiology of mental disease, where it starts and what can be done in the

way of prevention. We have made great progress, but the big job is still before us, and I appeal to you, as members of the Medical Association of Georgia, to look very kindly upon any proposals for betterment in this work from the psychiatric viewpoint, especially along the line of child study.

Dr. Newdigate M. Owensby, Atlanta, Ga. (closing)—Doctor Echols' discussion was appreciated. At present there are more beds for psychiatric cases than for all other diseases combined, and additional beds are demanded each day. The magnitude of the psychiatric problem is so great that one hesitates to mention it lest he be accused of gross exaggeration. There will be no amelioration of this problem until the medical profession learns that the best method of prevention is a neuropsychiatric consultation or examination of all children and adults who show any peculiarity of behavior, maladjustment, or faulty habits of thinking. Psychiatry is advancing faster than any other specialty in medicine and I greatly fear that the public is becoming better aware of this fact than is the profession.

THE CASE FOR AND AGAINST COFFEE

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Among the cups that cheer but not inebriate, coffee holds a favorite place, so that the question as to its beneficent or harmful effects on various individuals is constantly coming up.

Scare-head advertisements in the popular periodicals, exploiting coffee substitutes, would lead us to believe that it is an insidious poison, sapping both strength and intellect; while the purveyors of some of the prominent brands of coffee would convince us that it is the original ambrosial nectar, once so much in vogue on Mount Olympus, possessing most of the attributes of the elixir of youth.

Having studied this subject earnestly, and having had a fair experience in the dietetics of coffee, the writer will endeavor in this article to extract from the maze of contradictory statements (which, by the way, are not all in the popular prints) a scientific viewpoint of this almost universally esteemed beverage.

Historical and Geographical

Coffee was not known to the Greeks or Romans; but in Abyssinia and Ethiopia it has been used from time immemorial. In Arabia it was certainly in use in the fifteenth

century, and by the sixteenth century it was generally drunk over the rest of the east.

Leonard Rauwolf, a German physician, was probably the first to make coffee known in Europe, by the account of his travels printed in 1573. Soon after its introduction, coffee-houses arose almost everywhere, and for about a century these houses were popular resorts, equaling in patronage our present-day clubs and cafes.

Like cotton, coffee thrives best under rather limited conditions, needing a moist atmosphere and an equable temperature, approximating sixty or seventy degrees the year around. It has been found, however, that with care, its geographical distribution can be considerably increased, and it is now grown for market in nearly all of the tropical and semi-tropical latitudes, as well as in some of the temperate.

The coffee drunk in the United States is mainly imported from South and Central America, Mexico, and Java, 63 per cent coming from Brazil.

Composition

Coffee consists of the berries or seeds of the *Coffea Arabica*, which are dried, roasted, ground, and subjected to infusion. The ingredients are water, fat, crude fiber, ash, caffein, albuminoids and other nitrogenous matter, sugar, gum, and dextrin.

The exhilarating and stimulating effects are caused by the caffein and caffeic acid, and a volatile oil developed during roasting. Caffein is chemically identical with the thein of tea, possessing the same physiological properties.

The coffee berry contains no starch, its principal carbohydrate being cane sugar. It also contains a little aromatic oil, made active by roasting, which is slightly stimulating to the nervous system.

Physiological Action

In its physiological action we may confine the discussion to caffein, as that ingredient exerts practically the whole effect.

On the circulation its action is somewhat antagonistic, for, while it tends to increase the rate of the heart by acting directly on the heart muscle, it tends to decrease it by stimulating the inhibitory center in the medulla.

It also to some extent dilates the peripheral vessels, which accounts for the feeling of surface warmth following its ingestion. The combined effect is to somewhat increase the rate of the heart, and also slightly the output of blood per unit of time.

On the nervous system caffeine is a powerful cerebro-spinal stimulant. Even small doses increase mental activity, quicken perception, induce wakefulness, and lessen fatigue. Toxic doses heighten reflex excitability and may be followed by tetanic convulsions.

Small amounts of caffeine increase the irritability and working power of all forms of muscles, and, judiciously used, aid the muscular efficiency.

The respiratory center is highly stimulated by caffeine, both the number and depth of respirations being increased by its administration.

On the kidneys the effect is marked, the diuretic action being shown more in the increase of water than solids, lowering the specific gravity of the urine. This is a point worth noting by life insurance examiners. Caffeine diuresis is probably due to a direct stimulation of the renal epithelium, though some pharmacologists ascribe it to a dilatation of the renal arterioles.

On the gastric mucous membrane caffeine has but little effect, but the beverage coffee seems to stimulate the oxyntic cells and increase the secretion of hydrochloric acid. It also seems to stimulate to a certain extent the peristalsis of the intestines.

Elimination

Caffeine is mostly eliminated as dimethylxanthine and monomethylxanthine. But little is oxidized to urea.

Psychic Effect

Up to a certain degree it heightens mental preceptions, clarifies foggy brains, wards off drowsiness, and inhibits nature's danger signal, fatigue. Pushed too far there is a feeling of extreme "nervousness", dread of impending danger, and confusion of ideas.

The methods of preparing the beverage are almost numberless, varying with individual and local ideas and customs; while the appliances used run from the simplest and cheapest vessels to complicated and costly

outfits. To describe even a small number of these methods would lead too far afield, and will not be attempted.

Proper Uses

For those who are temperamentally unstable, or whose nerves are "set on a hair-trigger", coffee has no proper use. It is a *drug*, no matter under what flag it sails, and it tends to induce a drug habit just as any other stimulant.

On those of an equable poise, and whose digestion is not awry, it acts as a mild gastric and cerebral stimulant, cheering both the stomach and the brain. On many people, when drunk early in the morning, it exerts a distinctly laxative effect, thus helping to clear away the ashes of combustion and debris of metabolism.

Strong coffee, either alone or with a little lemon juice, is often useful in overcoming a malarial chill or a paroxysm of asthma. It is frequently serviceable in migraine, while the headache from fatigue or the dizziness accompanying "the morning after" quickly disappears after drinking a well-brewed cup.

In low delirium, or when the respiratory centers are blunted by opium poisoning, strong black coffee is helpful in averting that drowsiness which would soon merge into coma.

In emergencies it may be injected into the rectum, as well as taken by the mouth.

In alcohol intoxication also it tends to clear a befuddled brain and lend steadiness to wobbly knees; while in shock from hemorrhage or otherwise, it ranks highly as a therapeutic agent.

The food value of coffee alone is very slight, but by its flavor, and the fondness generally existing for its taste, many nutritious articles can be combined with it to advantage.

To those who object to the taste of milk, the addition of even a small amount of coffee will sometimes make it palatable, and it will acceptably flavor many kinds of food for invalids, such as jellies, custards, ice cream, etc.

The "morning coffee", a tiny cup of the beverage, served black, with or without sugar, and drunk in bed just before arising, seems to brush away the cobwebs from a sleepy

brain, and helps to start the day's activities with snap and vigor.

This custom, which is principally confined to Louisiana, is a most pleasing one, and seems in no way harmful.

Speaking generally, a small amount of not-too-strong coffee, drunk in the morning or middle of the day exerts no ill effects on a healthy body or a normally strung nervous system; on the contrary, it may help to "knit up the raveled sleeve of care", and often, after a specially comforting draft, we acknowledge that gratitude for the delicious potation almost like old Omar Khayyam when he sang to wine:

"Come, my beloved, drink with me the cup that clears

The day of past regrets and future fears."

Harmful Effects

Strong black coffee, taken after a full meal, somewhat retards the digestive process, and should be avoided by dyspeptics, especially those accustomed to using strong condiments to wake up an already tired stomach.

As coffee wards off some mental languor and drives away sleepiness from those whose duties require intellectual concentration or night work, it is easy to form a coffee habit, which, yielded to, may lead into muscular tremors, palpitation, a feeling of precordial oppression, tinnitus aurium, hyperesthesia, muscular lassitude, vertigo, heartburn, vague symptoms of indigestion, constipation, and pronounced insomnia.

These symptoms usually subside quickly on discontinuance of coffee, though persons of nervous temperament or frail physique may require a long time for recovery.

That excess in its use interferes with general nutrition has been well proved, for a number of years ago Shultz found that under certain conditions when albuminous digestion was 94 per cent, upon the addition of coffee it was reduced to 64 per cent.

It is certain that coffee is suited to no class of dyspeptics unless very dilute and in extremely small quantities. It may be further stated that in no disorder of the stomach is coffee actually indicated.

On growing children, particularly those at school, it exerts a baneful effect, both by interfering with nutrition and by whipping

up an already sensitive and rapidly developing nervous system. The resilience of youth is sufficient unto itself, needing no adventitious aid.

Not infrequently these night terrors in children can be traced directly to coffee.

Among other occasional ill effects may be mentioned pruritus, bradycardia, an irregular heart action, and an appetite for bizarre articles of food.

Idiosyncrasy must be taken into account with coffee, as with any other drug, for we well know what may be detrimental to one does not necessarily harm another.

The foregoing attempts to cover the subject fairly. Coffee has its good points, its limitations, its marked abuses, and, while some of the conclusions embodied herein may meet with dissent, they are based on both experience and the opinions of some of the most thoughtful students of the present day, and the writer believes they are worthy of consideration.

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AND STILL ANOTHER

So much has been heard in late years about the high cost of medical attention that it is important and gratifying to learn something about the other side of the question.

The information is furnished in the preliminary and partial report of a committee of the Allegheny County Medical Society, which has been inquiring concerning the amount of free medical service rendered in the hospitals of the country.

Returns have been received from twenty-one of the twenty-eight hospitals interrogated. They state that during their last fiscal year there were 488,338 free patient days in the hospitals and 245,149 visits to the out-patient departments, making a total of 733,487 contacts of a charitable nature between physicians and patients. The complete totals for the twenty-eight institutions are expected to approximate 1,000,000.

An immense amount of free medical service is furnished, in addition, by physicians working independently of the hospitals.

It is said that if the commercial value of this free service were to be reckoned it would constitute a philanthropy so huge that the gifts of some of our well-known welfare associations, in comparison, would pale into insignificance.

The doctors probably are going to have to increase their free service this winter. The public as well as the direct recipients of their charity owes them a debt of gratitude. Theirs is a philanthropy which attracts little attention, and which on that very account merits more appreciation than it receives.—*Pittsburgh Sun-Telegraph*.—A. M. A. Bulletin, January, 1932.

TETANY FOLLOWING THYROIDECTOMY*

Case Reports

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Tetany, or muscle spasm, particularly of the extremities, is due to hyper-excitability of the neuro-muscular system, which results, in all probability, from a disturbance in calcium metabolism. It is manifested by intermittent tonic muscle spasm, usually symmetrical and usually involving the flexor muscles of the extremities, especially the upper. There are usually premonitory symptoms, such as numbness and tingling of the fingers and toes, stiff joints, weakness and sometimes confusion and loss of appetite. This period is variable and the attack varies from slight spasm of a single muscle or group of muscles to complete loss of consciousness, with spasm of all the muscles, including the laryngeal, and the duration of the attack varies from a few minutes to days. The condition may follow or be caused by several conditions, such as rickets in children, chronic diarrhea, infectious diseases, rapid, successive pregnancies, or it may follow operations for goiter. The cases I wish to present have both followed operation for hyper-thyroidism. It was this type that led to the experimental work demonstrating the relationship of the parathyroid glands to the condition.

McCallum and Voegtlin demonstrated in 1908 that the removal of the parathyroid glands was followed by tetany and a reduction in blood calcium, and that the tetany was relieved and the blood calcium restored by the intravenous injections of calcium salts. Therefore, the chief interest centers around calcium metabolism.

Calcium in the blood is necessary for the formation of bone, coagulation of blood and maintaining a proper environment for the living cells. It requires about four times as much for a growing child as for an adult. In 1925 Collip isolated the parathyroid extract or hormone, which, when given sub-

cutaneously or intravenously, would relieve the symptoms of tetany, and also raise the calcium content of the blood, and if given continuously would raise the calcium level to double the normal amount, the nitrogenous content being greatly increased and the blood concentrated — a condition called hypercalcemia.

Barr, Bulger and Dixon reported a case of hyper-parathyroidism in 1930, due to a hyper-functioning adenoma of the parathyroid gland. There was rarefaction of bone, bone cysts, muscular weakness and formation of calcium stones in the bladder, with an increased calcium content of the blood and urine. Removal of the adenoma resulted in improvement of the patient. With the ever-present possibility of abnormally placed parathyroid glands, as Lahey has demonstrated, and with the increasing number of thyroid operations, also with the increased tendency toward removal of more gland tissue, particularly in the hyper-plastic or exophthalmic type, to prevent a continuation of the hyperthyroidism or recurrence, there will, in all probability, be a greater number of cases of tetany seen. DeQuervain reports a case with a positive Trousseau sign, seen four years after the operation and with only subjective feeling of abnormal sensation when she was occupied or tired from her domestic duties. He further states that there is more danger following the operation for recurrence, especially if the previous operation was a unilateral thyroidectomy. The surgeon who is more conservative will have a greater number of recurrent goiters, and the one who is more radical will have a greater number of cases of tetany. The condition may be temporary; due to the pressure of a bandage, accumulation of serum or clot, infection or trauma, all of which temporarily interfere with the blood supply of the parathyroid gland.

Richter and Zimmerman, in a postoperative study of 100 consecutive goiter operations, found evidence of latent tetany in 14, thus demonstrating the frequency of the condition. Symptoms became manifest in only two, and those were not of a severe grade. In some of the cases, definitely positive, a fall in the blood calcium was noted, but on the whole there

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was no marked difference in the calcium level in the blood in the tetanic and the non-tetanic cases. They think the calcium deficiency is an associated condition, rather than the actual cause of the tetany. However, in the majority of cases of active tetany, the serum calcium varies from 5 to 8 Mgm. per 100 c.c. of blood, while in the latent cases, the serum calcium is normal or only slightly reduced. In a personal interview with Lahey, he tells me he has only had three cases of tetany in over 9,000 thyroidectomies. All symptomatic treatment aims at tiding the patient over the acute stage of parathyroid insufficiency, until regeneration of the glands takes place or until the body has adapted itself to the loss or reduction of parathyroid secretion.

Case 1—A fifty year old white woman first consulted me in September, 1930, being referred by Doctor Harry Rogers. Her chief complaints were nervousness, dyspnea and palpitation of the heart, especially on exertion. Four years ago, the left lobe of the thyroid was removed, followed in two weeks by a hysterectomy, bi-lateral salpingectomy, right oophorectomy, and the removal of silent gallstones with drainage of the gallbladder. She recovered from this and was perfectly well until the spring of 1930, when she consulted her doctor for nervousness. He prescribed increasing doses of thyroid extract until she was taking ten tablets per day. There had been a loss of about twenty-five pounds in weight. In August she consulted Doctor Rogers, who had a basal metabolism test made, which was plus 33. The tablets were omitted and, together with rest and Lugol's solution, the metabolism came down to plus 27.

There was slight exophthalmos, an enlarged right lobe of thyroid gland and a definite tremor. The blood pressure was 150 over 80 and pulse rate 88 to 116. On October 29, 1930, the right lobe of the thyroid gland was removed without difficulty. The laboratory reported evidence of exophthalmic goiter and also adeno-carcinoma. Quite an inflammatory reaction in the wound occurred with suppuration. About the eighth or ninth day she complained of her fingers tingling and a feeling of numbness at times, but we were so concerned about the character of the growth that we paid little attention to this. Progress was fairly satisfactory, but she complained of considerable weakness, more than usual following the average goiter operation. She was dismissed from the hospital November 10th with a discharging sinus in the stab wound. November 20th, while in the office, she stated that she felt like her jaws were going to lock at times and her knees felt stiff. There was some tingling and numbness in her fingers. There was muscle spasm on the dorsal surface of her thumbs; Chvostek's and Trousseau's sign were positive. Calcium lactate was prescribed, fifteen grains three times daily, and a high

carbohydrate diet was advised. She left the office and in about fifteen minutes was brought back, after having had an "attack" of some kind in the lobby of the building. She was pale, covered with cold perspiration, the pulse was fast, forearms flexed and thumbs flexed on the palms of her hands (the so-called obstetrical hand). In a short time she felt considerably better without any medication and was sent home. The next day she felt decidedly better, but developed diarrhea. Three days later she had an attack of acute pain in the epigastric region and was sent into the hospital the next morning.

There was evidence of active tetany, consequently twenty units of para-thormone was given and repeated in six hours, after which the blood calcium was eight Mgm. per 100 c.c. of blood. The leukocyte count was 17,500 and there was considerable rigidity over the gallbladder area. The calcium lactate was continued and sedatives were given. The active tetany cleared up almost immediately. Four days later an abscess around the gallbladder area, the exact source of which was not determined, was opened and drained. The tingling and numbness continued, but gradually improved. On December 27th, the sinus in her neck was removed and she left the hospital December 31st decidedly improved. Since leaving the hospital she has taken calcium lactate, one dram three times daily, with steady improvement in appetite and general well-being. The blood calcium on March 6th, was eleven Mgm. per 100 c.c. of blood and she was symptom free, except for occasional tingling in her fingers and she had regained her normal weight. On April 12th, the blood calcium was 8.08 Mgm. and there was some tingling in her fingers, but she stated that she had been careless about taking the calcium, which brings out the fact that it must be taken systematically as its effect lasts only a short while, as the next case demonstrates very clearly.

In this case, the trouble was, I believe, due to an inflammatory interference with the blood supply to the parathyroid glands on the right side rather than actual removal of the glands at operation. Most certainly the parathyroids on the left were removed at the previous operation four years before because that side was not even explored at this operation.

Case 2—A fifty-one year old married woman first consulted me in April, 1930, complaining of nervousness, loss of weight, and sleeplessness, due to the pounding of her heart against the chest wall. Past and family histories were unimportant, except one sister was operated upon for toxic goiter. She was very nervous and there were definite tremors and a slight exophthalmos. The blood pressure was 180 over 90, pulse rate 120, and there was slight enlargement of the thyroid gland. Examination of the urine showed a trace of albumen, with an occasional cast. A diagnosis of toxic goiter was made and a basal metabolism was suggested. However, she did not return until November, at which time she was feeling much worse, stating that she had been treated medically since first consulting me. A letter from her doctor informed me that she had been on thyroid extract since April. The laboratory

examinations were all negative, except the basal metabolism was plus 50. The blood pressure was 170 over 90 and there was a decided uniform enlargement of the thyroid gland. After rest and administration of Lugol's solution, a bilateral thyroidectomy was done January 3, 1931. The major portion of both lobes were removed. The laboratory report was "definite hyperplasia". Following the operation she had some difficulty with her voice and in swallowing, but this soon cleared up. All along she complained of feeling "QUEER"; the pressure of the bed felt "FUNNY", and she was more or less confused.

About the tenth postoperative day she stated that her "fingers had gone to sleep" and she had to move them constantly to know that they were still there. Also there was considerable tingling in them at times. She had no desire for food, and this worried her quite a bit, as her appetite had been unusually good before the operation. She left the hospital January 11th, with the incision healed.

Calcium lactate was prescribed, fifteen gr. three times daily, also dilute hydrochloric acid was prescribed, fifteen drops, three times daily, with forced feeding of a high carbohydrate diet. On February 7th, she came in the office looking pale and complaining of tingling in her fingers and toes with inability to control her thumbs. The thumbs were flexed on palms of her hands, and fingers extended, but flexed at metacarpophalangeal joint (obstetrical hand). Chvostek's sign was positive. Calcium lactate was increased to grains 30, three times daily. That night at eleven o'clock, I was called to see her. She was unconscious, pale, cold, and there was a clammy skin and fast pulse. The inspiratory sound was harsh, simulating the breathing of a child with croup. Thirty units of parathormone was given subcutaneously and in twenty minutes she was conscious and asked what all the commotion was about. Next day she was feeling good except for a slight tingling in her fingers and hands. Calcium lactate was increased to one dram, three times daily. The blood calcium has varied since from 5.3 Mgm. to 9.03 Mgm. per 100 c.c. of blood. It requires one ounce of calcium lactate every twenty-four hours to keep her symptom free and her blood calcium within the range of normal. On March 28th, the calcium lactate was reduced to one dram, three times daily. Two days later she had a slight spasm of her thumbs and the blood calcium had dropped to 6.72 Mgm. per 100 c.c. of blood. She has regained her weight and her blood calcium is normal.

It has been demonstrated that in completely parathyroidectomized dogs it requires $1\frac{1}{2}$ grams of calcium lactate per kilo of body weight to keep them symptom free and the calcium content of the blood normal.

I believe the latter is a case of tetany resulting from an actual removal of one or more of the parathyroid glands, and not due to an inflammatory interference with the blood

supply. If there is any similarity between the calcium metabolism in dogs and humans for each unit of weight, then she would require approximately two ounces of calcium lactate every 24 hours to control her symptoms, if all of the parathyroids had been removed.

Comment: Two cases of postoperative tetany following operations for hyperthyroidism are reported. Both cases were about the same age and both had been taking thyroid extract for several months before the operation for goiter. One, whose weight is 155 lbs., is kept symptom free and the blood calcium normal by taking 3 drams of calcium lactate every 24 hrs. and the other, whose weight is 110 lbs., requires 1 ounce of calcium lactate every 24 hrs. to keep her symptom free and the blood calcium within the normal range.

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THE PREVENTION OF THE INTRODUCTION OF DISEASES FROM ABROAD

In a report, recently made public, Surgeon General H. S. Cumming, of the Public Health Service, points out that at the beginning of the past fiscal year cholera was present in epidemic form in several islands of the Philippine Archipelago. There was a minor extension to the city of Manila, some 50 cases occurring there. Interisland quarantine was enforced against several insular ports at various times during the year. It is not likely that this epidemic, however, followed by any recent importation of the infection, as history shows that cholera recurs in epidemic form in these islands every four or five years, and may be considered as endemic there.

During the past fiscal year no instance occurred of the importation from abroad of any quarantinable disease into the United States. Several cases of quarantinable diseases reached our quarantine stations and were detained.—U. S. P. H. S., January 26, 1932.

TRANSPLANTATION OF URETERS FOR EXSTROPHY OF BLADDER*

Case Report

B. T. WISE, M.D.

Americus

Exstrophy of the bladder is one of the most distressing manifestations of congenital malformation. Although noted since the earliest times, it is only in the last two decades that the condition has been treated successfully. The essential deformity is the situation of the open bladder on the abdominal wall, but various accompanying malformations may occur, such as anomalies of the external and internal genitalia. There is practically always a widening of the pubic interspace, with usually a resultant effect on the gait. The constant presence of urine pouring over the raw bladder surface and thence on to the genitalia and abdominal wall causes personal discomfort and inconvenience, nurture the development of inferiority complexes, and often leads to social ostracism. The condition interferes with normal sexual life and places an injunction on reproduction. The raw bladder surface and the open ureteral orifices invite ascending ureteral infection. Observation of the ureters near or at the vesical orifice on the other hand, may cause ureteral dilatation.

Incidence

While the condition is uncommon, it occurs sufficiently often to warrant reporting of cases and to stimulate continuous experimental surgery in an effort to establish the best method of treatment. According to Spooner⁹ it occurs once in every 18,000 to 20,000 births; others say 1 in 55,000. At the Mayo Clinic, more than 100 cases were seen from 1901 to 1930. Turner,¹¹ in England, has reported ten personal cases.

Development of the Operation of Ureteral Transplantation

Attempts at plastic closure of the exstrophied bladder being universally futile, it was necessary to devise another means of remedying this distressing condition. The rationale of practically all operations for ectopia vesicae lies in attempting to simulate the ex-

cretory tract of reptiles, birds, and early human embryos by establishing a single unit for both urine and feces. Various operations were devised to this end, varying from the attempt of Lloyd, in 1851,⁸ to create a vesicorectal fistula, to the ureteral anastomosis to the rectum attempted by Thomas Smith in 1878,⁸ and progressing through the work of Maydi, Peterson, Fowler, Martin, Berghenhem, Peters, and others, to the finished technic of Coffey and Mayo in use today. Coffey,^{1,2} in 1911, published the results of his work derived from experimental anastomosis of the ureter with the sigmoid, after the manner in which the bile and pancreatic ducts enter the small intestines. He concluded that there must be a valve action present, to avoid ascension of the intestinal contents. Later, he devised the catheter method which consists in stitching catheters in place in the ureter with the external ends outside the rectum. The catheters automatically slough out after a few days. Still more recently, Coffey^{4,5} has devised a newer method, applicable to two stage operations only, in which he dispenses with the use of the catheters, buries the ligated end of the ureter in the submucosa, and a short distance proximal to the end, inserts a transfixed suture which in 24 to 48 hours, sloughs through the mucosa, and leaves a uretero-sigmoid communication. In this way he avoids entering the mucosa with the incision at the time of operation, and still obtains the valve action of the indirect entrance. In January 1930, Kerwin,⁸ in an excellent article, reviewed the history of the operation and suggested a modification of Coffey's tube technic. He contends that this removes the ureteral orifice from direct contamination by the feces, and at the same time embodies the valve principle. The method is essentially the creation of a submucous tunnel leading from the buried end of the ureter to a mucosal opening in the lower lumen. The author does not state whether this operation has been successfully performed on the human. Mayo's operation⁹ is patterned after Coffey's original method, without tubes, and will be detailed in the case report below.

Result of the Operation

In the absence of extensive renal changes, a

*Read before the Surgical Section of the Medical Association of Georgia, Atlanta, May 14, 1931.

properly preformed implantation provides a convenient and efficient urinary excretory apparatus which may enable the individual to pursue a comfortable, normal existence for a long period of years. Turner¹¹ reports one case well thirteen years after operation, with two healthy children aged seven and five, delivered without mishap.

The mortality of the operation, done according to the newer technic, is very low, when the nature of the operation is considered. Coffey⁵ in May 1930 reported one surgical death in 20 cases, a mortality of 5 per cent. In one series of cases (quoted by Kirwin) Mayo lost four of 26 patients, a mortality of 16.5 per cent. The brilliant results obtained and the relief afforded the miserable patient afflicted with exstrophy of the bladder fully justify the operative risk involved. Inflammation and obstruction of the ureter at or near the site of the anastomosis may occur, with resultant ureteral dilatation and renal infection, but such a condition is amenable to ureteral catheter drainage and dilatation through the sigmoidoscope. Turner reports a case so treated successfully. The rectum becomes quite accustomed to the presence of urine, although there is usually an excess of mucus on the bowel wall in the area. The patients are able to go several hours without discomfort or necessity of emptying the rectum. The soggy, odorous pads can be discarded and the patient lives in comfort. The mental attitude brightens, and life is worth living. Sexual function becomes normal, and maternity, though perhaps attended by an element of risk, is possible.

Applications of the Operation

The operation of ureteral implantation, providing as it does a new excretory channel for the urine, is valuable in conditions other than exstrophy of the bladder. Among these are injuries to the bladder; advanced malignancies involving the bladder and ureters; epispadias with incontinence in the male; and vesico-vaginal fistula. Coffey⁴ advocates the double transplant method, together with removal of the bladder, at one operation in cancer and in incurable tuberculosis of the bladder. Among others, Peple³⁰ has reported the successful handling of a large vesico-vaginal fistula by this method.

Case Report

The following case of ectopia vesicae, or exstrophy of the bladder, which was referred by Dr. John F. Lunsford, of Preston, Ga., is reported in order to stimulate interest in the treatment of this distressing condition; to place another successfully treated case on record; and to illustrate the surgical procedure involved.

A white girl, aged 7 years, born of healthy parents, had been normal at birth except for slight underdevelopment of the labia, and an externally placed bladder. This appeared as a raised, spherical area at the normal site of the mons veneris, with two ureteral orifices identified by spurts of urine. The patient had successfully weathered attacks of the usual diseases of childhood, with no complications. A cotton pad was worn over the bladder to absorb urine. She usually sat with her thighs widely everted, stood with them widely separated, and walked with a slightly waddling gait when a small child. It was noted by her family physician that the pubes were widely separated. The appetite was poor, she was somewhat undernourished, and rather nervous.

At the age of 6 years she sustained a fracture of the middle third of the right femur in an automobile accident in which her mother was instantly killed. The fracture was treated at Wise Sanitarium by traction and suspension methods with excellent anatomic and functional results.

In March, 1930, at the age of 7 years she was readmitted to the hospital for treatment of the bladder deformity. At this time, the labia majora were spaced rather widely, but normally developed, and the labia minora were rudimentary. There was a wide separation of the pubes, but a strong intersymphysial cartilage was present. The open bladder appeared as a red raised, spherical mass about the size of a small lemon, at the normal site of the mons veneris. In this mass were two small orifices from which urine exuded.

The Mayo technic of ureteral transplantation was followed. At operation, under ether anesthesia, on March 15, 1930, the abdomen was opened through a low left rectus incision. There was no free fluid in the peritoneal cavity. The uterus and adnexa were normal. The peritoneum over the lower portion of the right ureter was incised, the ureter dissected free, and its distal end ligated and divided near the bladder. The ureter was noticeably dilated. The sigmoid was brought up and two intestinal clamps applied. Three longitudinal incisions about 1 cm. long and about 2 cm. apart, extending down to the mucosa were made along the anterior longitudinal band. By blunt dissection the three incisions were connected by tunnelling under the serous and muscular coats down to the mucosa. A suture of plain catgut was placed in the lower end of the ureter which was drawn through the tunnel and the distal end carried inside of the bowel through a small opening in the mucosa and finally anchored to the wall of sigmoid. The incisions in sigmoid were then closed with linen sutures, the peritoneal incision over the ureteral bed closed,

and the abdominal incision closed in layers around small soft rubber drainage tubes.

At the beginning of the operation the pulse rate was 82 per minute and 120 per minute when operation was completed. The operation lasted one and one-half hours. The temperature of the patient reached 100.2 at the end of the first day after operation, and gradually declined thereafter. Hexamine was given by mouth, and rectal irrigations with normal saline solutions were used. There was a moderate amount of serous drainage from the abdominal wound. On March 24th, 9 days after operation, the abdominal wound was practically healed, and temperature was normal.

On March 25th, transplantation of the left ureter was done by the same technic, at the point in the sigmoid about one and one-half inches above the original transplantation. The abdomen was opened through the original incision, and no free fluid was found in the peritoneal cavity. Fragile adhesions had formed around the transplanted right ureter and were not disturbed. No dilatation of the right ureter was noted. The left ureter was easily located and was about four times the normal size in the entire observed extent. The operation was completed and the abdominal wound closed in layers about one soft rubber drainage tube. This operation lasted one hour and fifteen minutes. The temperature was 101 the day after operation and reached 102.3 the following day and gradually returned to normal by the sixth post-operative day and remained normal. The post-operative treatment was the same as that following the primary operation.

On April 4th, 10 days after the last ureteral transplantation, the bladder was removed under ether anesthesia and the wound closed with silkworm sutures. Three days later the patient was dismissed from the hospital and returned home to be under the care of her family physician. At this time she had gained some control of the sphincter ani, was fairly comfortable at all times. The post-operative convalescence was uneventful, the wound at the site of the removed bladder healed rapidly. The use of a heavy elastic binder about the hips was continued for about three months after operation. Control of the rectal sphincter became increasingly good, and there was a noticeable gain in weight and improvement in appetite.

When last seen, on April 27, 1931, one year after operation she appeared to be a normal child, was well advanced in her school work, enjoyed playing games, presented practically no abnormality of gait, and had gained about 15 pounds in weight and 2 inches in height. She possesses sphincter control at all times and voluntarily expels urine and feces from the rectum every four to six hours. She evacuates once or twice at night, usually only once. The pubes have remained widely separated, as shown by x-ray examination. Epiphyseal development is normal for her age. The bladder wound was entirely healed.

Summary

1. The definition and incidence of exstrophy of the bladder are given.

2. The rationale and history of operations for relief of this condition are discussed.

3. Various uses for ureteral transplantation are mentioned.

4. A case of ectopia vesicae, successfully treated by ureteral transplantation, is reported in detail, with a record of the results at the end of one year.

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DISCUSSION ON PAPER BY DOCTOR WISE

Dr. W. A. Selman, Atlanta.—I have enjoyed the presentation of this case by Doctor Wise. It has fallen to my lot, also, to operate on one case, and I have been able to follow that case for fifteen years.

There are several points of interest in regard to this defect. One to which I want to call attention is to be sure, before you turn the course of the ureter into the rectum, that there is not a second anomaly, namely, incontinence of the sphincter. Be sure you have a continent sphincter. Sometimes these cases have more than one defect, and if you turn the urine into a rectum that is incontinent the patient is in a worse fix than before.

The second point is the change in the rectum to handle urine. That is why Dr. Charles Mayo says he implants one ureter at a time and not because it is such a great shock to the patient. If you turn one ureter into the sigmoid, the sigmoid gradually becomes accustomed to the presence of urine and stops absorbing it and stops treating it as a foreign body. For the first few days much of the urine is absorbed. But if you transplant first one ureter and then wait ten days, the rectum has stopped absorbing this urine. It is a wonderful provision of nature.

Another point is that all the males are sterile. Out of ten cases, there are eight females to two males. The males are all sterile; on the other hand, the females are not; they can all produce.

Another point to which Doctor Mayo calls attention is the fact that if you do not get them early, say at the third or fourth year, you find the ureters are enormously dilated when you get ready to do the

transplantation. In those cases of marked dilatation he makes a little slit. If they are enormously dilated he makes a longitudinal slit, and after the escape of the urine there is natural contraction.

I want to report this case in a girl, 4 years of age. Instead of transplanting one ureter at a time, I did a Maydl's operation, turning both ureters right back into the abdomen and implanting them into the sigmoid. The child had an uneventful recovery. We were able to bring the longitudinal muscles almost all the way down and had very little resulting scar. She got along very well in school. While in LaGrange in 1928 she was engaging in the Charleston dance and danced beyond her powers and had a prolapse of the uterus. She had no pubic bones, and as the uterus developed to greater weight she had a prolapse. She came back to me in August, 1928, and I did a laparotomy for suspension of the uterus and had the opportunity to see in there at that time. The ureters were not visibly enlarged. Of course, there was no pubic bone for support. I first resected a section of her fallopian tubes, so there would be no pregnancy later on, and sutured them so they would not reopen. This was done with the knowledge and consent of her mother.

Dr. Archibald Smith, Atlanta.—I have never had the opportunity of operating on one of these cases, but in discussing the question of the two-stage operation, in order that the rectum may become gradually immune to the presence of urine, it occurred to me that there might be a plan to overcome that by giving the patient frequent enemas of urine, which it seemed to me might bring about the same condition. If the rectum were accustomed to receiving frequent injections of urine before the operation was begun, it should gradually accustom it to the presence of urine and avoid the necessity of doing a two-stage operation, thereby decreasing the danger and period of time in the hospital.

Doctor Wise, (closing)—I just want to thank you for the discussion and thank Doctor Selman for reporting his case.

ONE FOR THE DOCTORS

There has been so much shooting at physicians by all sorts of marksmen, many of whom have used dum-dum bullets and other forms of ammunition forbidden under the rules of the game, that it is gratifying to one who still believes in the doctors of the land to find an editorial utterance here and there that gives them some credit for sense, honesty and humaneness. The physicians of Dover, Ohio, seem to enjoy the confidence of the editor of their home town newspaper and are to be congratulated on that. And there are hundreds of similar groups of physicians in these United States, impelled by the same motives of fidelity to their profession and the same ideals of service.—A. M. A. Bulletin, January, 1932.

The American Medical Association will hold its eighty-third annual session in New Orleans, May 9-13.

ATAVISTIC HUMAN FOOT*†

Its Developmental Significance

GEORGE A. WILLIAMS, M.D.

Atlanta

Atavistic phenomena claim the interest of the physician frequently because they may occasion problems of altered function, but more often because in them he sees incidents in the developmental course of the individual and episodes in the evolutionary history of the species. In the human foot may be seen many features which remind us that we are still within the gamut of evolutionary change. No one has ever delivered an infant and noted the peculiar configuration of the lower extremities without realizing that vast changes must occur before the adult type is attained. Considered functionally, the foot, with its ever-present problem of static disorder, must convince the orthopedist, at least, that he has to deal with an organ none too well adapted to its present requirements.

Briefly, the bony structure of the human foot may be regarded as having resulted from a gradual increase in size of the primate tarsus, and a shortening of the metatarsals and phalanges, especially the latter, together with a progressive diminution of the angle formed by the divergence of the hallucial metatarsal from that of the second toe. The arches of the foot have resulted from the position of supination of the outer, or digital, elements opposed by a well-developed great toe. It was but a short further step to the formation of the longitudinal arch of the foot when the supinated sole was placed upon the ground.

The external appearance of the foot in its several stages of development is characterized by the gradual disappearance of the lines which denote the separation and independence of the various elements of the foot, especially the cleft which marks the divergence of the great toe (fig. 2). The progressive development of the longitudinal arch

*From the Department of Gross Anatomy, Emory University. Abstract of article published in American Journal of Physical Anthropology, Vol. XVI, No. 1, July-September, 1931.

*Read by title before the Section on Surgery of the Medical Association of Georgia, Atlanta, May 14, 1931.

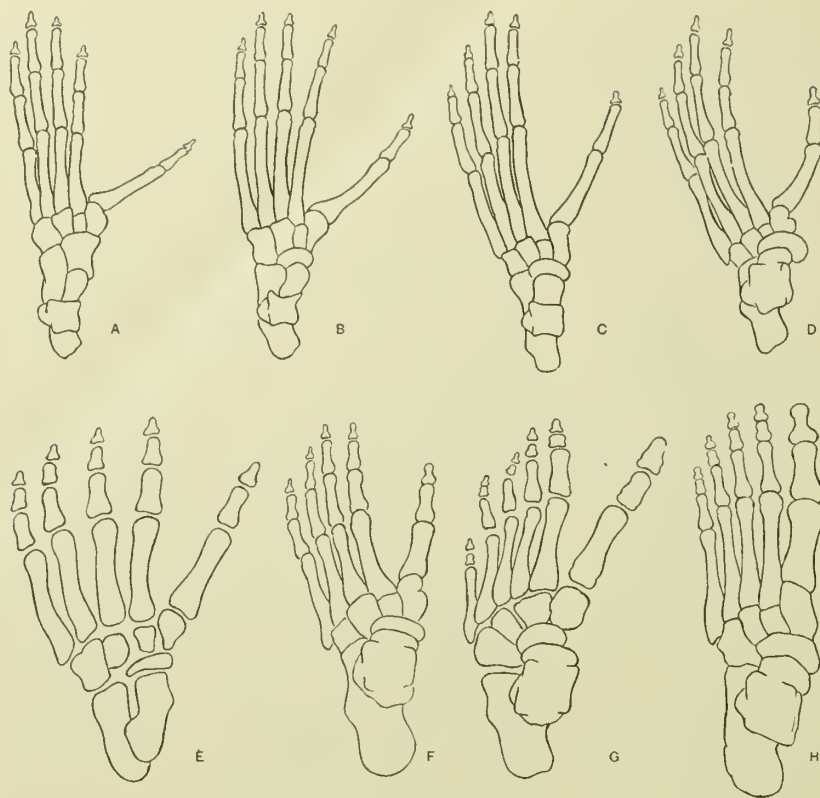


Fig. 1.
Skeletons of primate feet. A, marmoset; B, macaque; C, gibbon; D, chimpanzee (Morton); E, nine-week human fetus (Schultz); F, adult gorilla (Morton); G, author's case; H, adult human (Cunningham).

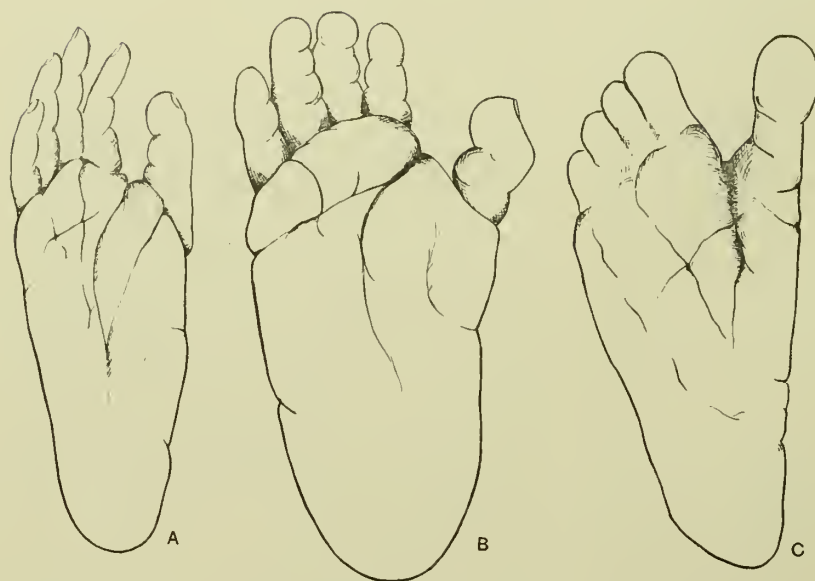


Fig. 2.
Plantar surfaces of primate feet. A, chimpanzee (Emory University Laboratory of Anatomy); B, gorilla (Keith); C, author's case.

and the growth of the tarsus, are, of course, strikingly portrayed in the external appearance of the foot in the various species.

Case Report

A native white school girl was observed to have numerous congenital malformations: among others: polydactylism, syndactylism, asymmetry of the skull, divergent strabismus, and marked mal-occlusion of the jaws. The

family history was of no importance except for the presence of polydactylism and syndactylism in the paternal line. A further investigation of the child revealed a foot of unusual appearance and remarkable mobility, although she had always worn shoes to conceal her deformity.

The atavistic nature of the foot can hardly be disputed. Its outstanding features: (1)

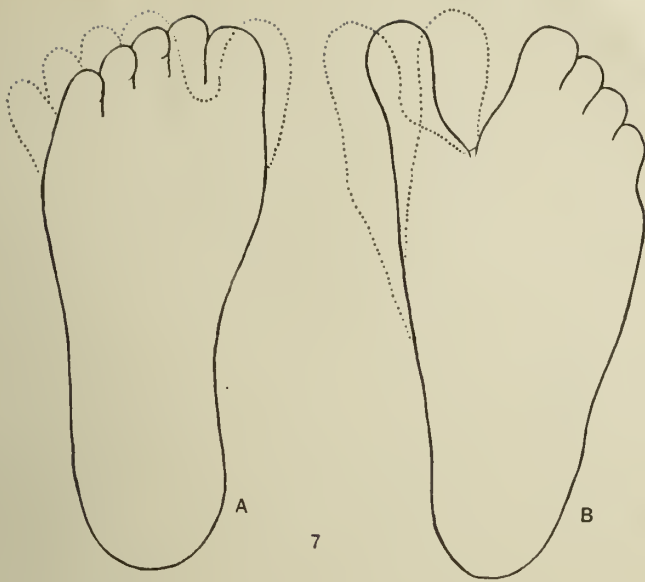


Fig. 7.
Tracings illustrating mobility of feet. A, armless Japanese boy; B, author's case.

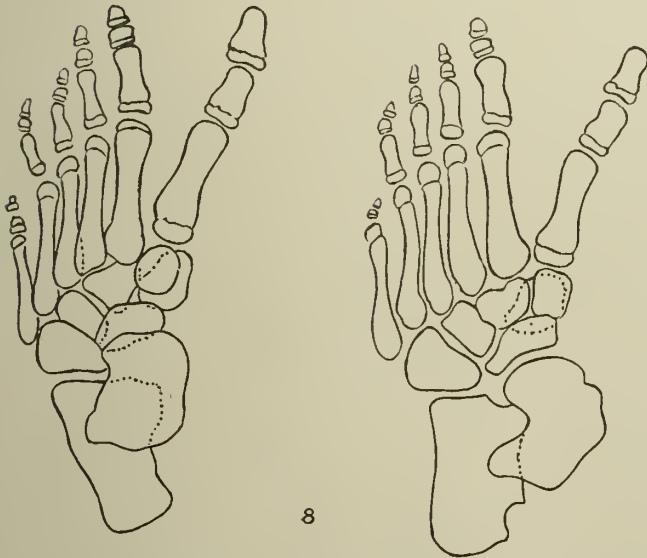


Fig. 8.
Tracings of roentgenograms, illustrating ankle and intertarsal mobility author's case).

arrested tarsal development; (2) a divergent, highly independent hallux, 95 per cent of the length of the second toe; (3) the presence of external markings denoting independence of the component parts of the foot, especially the great toe; (4) retention of intertarsal and tarsometatarsal mobility so that the foot may be supinated to bring the sole into the mid-sagittal plane three-fourths minus certainly resemble the fetal, or generalized anthropoid type of foot as closely as the approach the adult human type.

It is quite interesting to observe that the role of the hallux in the formation of the longitudinal arch in this case serves to support Sir Arthur Keith's contention as to the evolution of this essentially human feature.

A comparison of tracings illustrating the range of motion in an abnormally active *normal* foot of an armless boy who had employed his feet for writing, drawing, etc., with similar tracings of the *abnormal* foot described by the author served to emphasize that distinctive function must be concomitant with specialized structure (Wolff's law).

The program for the Savannah meeting, to be held May 18-19-20, will be published in the April issue of the Journal. It contains symposiums on eye, ear, nose and throat diseases, pediatrics, urology, with important papers on surgery and medicine. The subjects cover an interesting and varied scope of theory and practice of the healing art and should prove of such value to the entire profession of the State as to merit their attendance.

THE CLOSED TUBE METHOD OF TREATMENT OF ACUTE THORACIC EMPYEMA*

Clinic

D. HENRY POER, M. D.

Atlanta

The recognition and treatment of empyema is almost as old as the history of medicine itself having been described by Hippocrates and others, yet it is only within the last quarter century that the surgical treatment has been put on a rational basis. Indeed it is only since the recent World War that the condition has been studied extensively with the view of lowering the high mortality rate which existed up to that time. Then the surgical treatment almost uniformly consisted of an open type of operation, either rib resection (usual choice) or inter-costal incision; these were always instituted as soon as the diagnosis had been made and consequently were followed by a very high mortality rate (40%-50%) and in one of the army camps it rose to 84 per cent. This naturally brought about considerable reaction followed by the appointment by the government of the empyema commission headed by Dr. E. K. Dunham to study the situation and make recommendations. This they did very carefully, and recommended the "waiting" policy to give sufficient time for the formation of protective adhesions; this was followed by a very marked lowering of the death rate (4%-5%). In retrospect we know now that the empyema during the war usually followed the influenzal type of pneumonia and was caused by the streptococcus; this type is always followed by a high mortality rate if an open pneumothorax is created during the early state of the disease. Since that time various methods of treatment have been used and it is the results following the use of one of these that I wish to present.

Pathological Physiology: Soon after the war, Graham and Bell conducted some interesting and ingenious experiments on dogs to determine the effect of open pneumothorax on normal chest. They demonstrated that

under normal conditions the entire thoracic cavity was one unit, practically speaking, pressure being transmitted across the thin mediastinum almost as if it were not present. It was also shown that the thorax would tolerate an opening which would not permit the entrance of more air through the abnormal aperture than passed through the epiglottis with normal respiratory movements. In this manner pressures within the chest were not disturbed to a sufficient extent to produce shock which was thought to be due to displacement of the mediastinum to such an extent as to interfere with the return of venous blood to the heart, to the loss of the normal negative pressure and to loss of heat within the body cavity. Graham now called attention to the fundamental differences in the pathology of the pneumococcal and the streptococcal types of pulmonary infection with empyema as a complication. In the former the process is meta-pneumonic occurring after resolution has taken place and therefore after the suppurative process has become well localized by dense adhesions and the mediastinum has also become fixed. In the streptococcal types of pneumonia, however, the empyema is syn-pneumonic occurring very early in the course of the disease, and, therefore, before any attempt at localization or formation of adhesions has taken place. In this type there is also a more widespread involvement of the parenchyma of the lung fields on both sides and often bronchioles are obstructed due to areas of atelectasis with a resulting decrease in oxygenation and an increased dyspnea and cyanosis. Therefore there is already a marked reduction in the vital capacity and without the protection of localizing adhesions or stabilization of the mediastinum an open procedure is followed by further reduction of the vital capacity and shock which quite frequently results in the death of the patient. It is in this particular type of case that the closed tube method of drainage, which is not followed by the dangerous pneumothorax, is certainly indicated without argument. We have also demonstrated that it will provide sufficient drainage in the large majority of the pneumococcal infections if instituted early and carried out properly. In those few cases in which large

*Informal clinic before the Surgical Section of the Medical Association of Georgia, Atlanta, Ga., May 13, 1931.

clots of fibrin prevent free drainage through the tube, rib resection can be performed as a second stage, thus lessening considerably the shock of the open operation. Chronic empyema has been markedly reduced, occurring less than once in fifty cases.

Methods of Treatment

The usual methods of treatment that have been advocated and carried out at the present time are as follows:

1. Repeated aspirations.
2. Rib resection.
3. Intercostal incisions.
4. Closed tube (air-tight suction) drainage.

The advantages of all of these have been ably presented by others and I will confine my discussion to the latter, with which I have had considerable experience.

The closed tube method, first described by Immerman in 1887, has undergone many changes in the devices used, but all have retained the principle of air tight suction drainage. The principle modifications are those of Von Eberts, Holt and Remsen, Mezingo, Phillips and Whittemore. The advantages may be briefly listed as follows:

1. The period of illness is shortened. In cases treated by rib resection the average convalescent period is six weeks; with the tube method this has been reduced to three weeks with many cases leaving the hospital at the end of the second week.
2. There is no secondary infection of the pleural cavity.
3. Surgical trauma and shock are reduced to a minimum. The entire procedure can be performed in the patient's bed under local anaesthesia; this is of major importance with critically ill patients.
4. There is no troublesome and painful daily dressing.
5. Movements of the patient are not interfered with.
6. Drainage is complete due to the continuous suction. Irrigations are easily carried out at frequent intervals.
7. Lung expansion is assisted due to the negative pressure produced.
8. Decompression of the cavity can be carried out slowly thus preventing shock due to a rapid return of the heart and mediastinum to their normal position.
9. The percentage of chronic empyema is considerably reduced.

The disadvantages, mostly theoretical, are as follows:

1. Insufficient drainage. With the use of Dakin's solution early, the large collections of fibrin which usually cause the blockage can be prevented. Irrigations are carried out every two hours.
2. Cellulitis of the chest wall. This occurred

only once in our series and is much more likely to follow the open operation.

3. Pulling the tube out. A delirious patient or child may pull out the tube but this is of minor consideration for the tube can be replaced easily. We have experienced very little difficulty with this objection.

4. Apparatus is too complicated. If one is familiar with the principle of the method the complexity largely disappears. It consists of a large catheter (22F) which is introduced into the cavity, a Y tube connection one arm which leads to a bottle of Dakin's solution for irrigation, and the other arm into a bottle for drainage. The proper placing and changing of clamps on the tube is obvious if one bears in mind the idea of irrigation and drainage. Hart of Duke has added a rubber bag so that the solution is washed back and forth into the cavity with each respiratory movement; this is a valuable addition but not at all necessary for a successful result, and adds somewhat to the complexity of the outfit.

5. Injury to the diaphragm. This happened once in our series and did not influence the outcome of the disease as the patient made an uneventful recovery. Rib resection is not free from danger of the accident.

SAVANNAH

Historical Monuments and Squares

1. Johnson Square (D-2).
2. Gen. Nathanael Greene Monument (D-2).
General Nathanael Greene buried here.
3. Wright Square (D-2).
4. Gordon Monument erected in memory of W. W. Gordon (D-2)—First President of C. R. R. & Banking Co.
5. Tomo-Chi-Chi Boulder—(D-2)—In memory of Indian Chief, friend of General Oglethorpe.
6. Chippewa Square (D-4).
7. Oglethorpe Monument (D-4)—To the memory of the founder of Georgia—General James Edward Oglethorpe.
8. Madison Square (D-5).
9. Jasper Monument (D-5)—Sergeant William Jasper, who fell at the siege of Savannah, 1779.
10. Cannon Monuments (D-5)—These cannon mark the beginning of the first two highways in Georgia.
11. Monterey Square (D-6).
12. Pulaski Monument (D-6)—In memory of General Pulaski, killed at siege of Savannah.
13. Forsyth Park (D-7).
14. Fountain Forsyth Park (D-7)—Replica of famous fountain in Place-d-la-Concorde, Paris, France.
16. Confederate Monument in memory of Confederate dead (D-7).
17. Bust of Gen. Francis S. Bartow (D-7)—Hero of War Between the States.
18. Bust of Gen. Lafayette McLaws (D-7)—Hero of War Between the States.
19. Thomas Park (D-8).

(Continued on Page 111)

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OF THE
MEDICAL ASSOCIATION OF GEORGIA
Devoted to Welfare of Medical Association of Georgia

139 Forrest Ave., N. E., Atlanta, Ga.

MARCH, 1932

ASSOCIATION LOSES TWO EX-PRESIDENTS*

Dr. William Zellers Holliday was elected President of the Association at the 56th Annual Session, held in the Ballroom of the Kimball House, Atlanta, 1905. The records of the Association showed 686 active members, of whom 157 had not paid their dues for 1904, "notwithstanding the most continued and persistent effort upon the part of the Secretary". At that session the reorganization of the Association took place and our present Constitution and By-Laws were adopted, establishing the county societies as the constituent units.

Doctor Holliday presided at the next annual session, held in Augusta. During the year seventy-eight county societies had been organized and six counties, having too small a number of physicians for an independent organization, had united with adjoining societies, thus making eighty-four counties represented in the seventy-eight societies with a thousand paid up members. In addition there were between one and two hundred members in unorganized counties.

This splendid achievement gives ample evidence of the untiring efforts of Doctor Holliday and his co-workers and their love for the Association.

Dr. Mallie Adkin Clark, the first Chairman of the Council, was elected President at the 58th Annual Session of the Association, held at the De Soto Hotel, Savannah, 1907. Upon assuming the Presidency, Doctor Clark said: "Your President, your Councilors, working earnestly and seriously, can not make the Association the success that it should be without the help of each individual member. . . . I ask you, when you return to your homes, to enlist the interest of each member and help to keep your county soci-

eties well organized and interested, and if you will do that, the results next year will show that we have done good work and then my heart will indeed be glad, for I feel you will not have made a mistake in giving me this high position."

Doctor Clark presided at the 59th Annual Session, held in Fitzgerald, at which time the Association had ninety-four constituent societies and twelve hundred paid members. Eight district societies had also been organized.

In closing the discussion on his paper, "Medical Ethics" at the 57th Annual Session, held in Augusta, Doctor Clark said: "I'm anxious to see in the re-organization of the Medical Association of Georgia more than the combining of the county medical societies; I'm anxious to see a re-organization of the physicians of Georgia as a band of colleagues and brothers, working together for the benefit of mankind." What was thought essential then is even more important now.

The JOURNAL would like to record the scientific work of Georgia doctors. It earnestly requests, therefore, that each physician in the State who publishes a contribution in some other medical periodical submit an abstract of the article for these columns.

DOCTOR CLARK'S LAST LETTER*

I was much surprised to receive a membership card for 1932 marked "honorary". My local society must have acted on it, but I was never consulted nor advised concerning it. It was done as a compliment. I do not wish to show lack of appreciation of their good intentions, but I prefer to die an active member of the Association. I sent our secretary check for my 1932 dues the day your card came and I trust he will soon remit State dues to you. I am returning honorary card and by that you see that I am still on the active roll.

My life work is about ended. I am confined to the house with some of the very unpleasant consequences of a worn-out heart, spending my days and nights in a reclining chair because unable to breathe with ease in

*For further information relative to the careers of the late Doctors Holliday and Clark see the obituary columns of this issue of the Journal.

*This letter written only three weeks before his death in his characteristic fine Spencerian hand—though trembling with weakness—exemplifies the spirit and life of him whose love for the Association was exceeded by no one.

bed. This is my fourth week indoors and I am a little weaker every day, and it will not be so very long before the poor old heart will stop. Since I am able to be of service no longer, I shall welcome the end. I shall stand whatever suffering falls to my lot and murmur as little as possible, but I shall suffer more to have my loved ones suffer because they have to see me suffer. I am hoping to make the best of each day and bear the burdens as it behooves a Christian to do, but sometimes it is hard. The best that can be said of me after I am gone is that "I was a sinner saved by grace".

May I express to you, my dear friend, my deep appreciation of your sympathy and support in our work together in the Association and trust you will give me a pleasant thought occasionally as the years go by. I was not always tactful and maybe not expedient, but I was ever sincere and eager to do the right thing for the Association. They were good to me and I deeply appreciate it. I wish you long service in the Association and each year more useful and more influential.

I write with difficulty, but trust you can read it.

Sincerely your friend,

M. A. CLARK, M.D.

Macon, Ga., January 15, 1932.

TUBERCULOSIS

Early Diagnosis Campaign

Five years ago the National Tuberculosis Association inaugurated one of the greatest health campaigns this country has ever seen, being known as the "Early Diagnosis Campaign". Perhaps many of the readers are familiar with the slogan, "Let Your Doctor Decide," that was adopted in the campaign of the year just passed. On the 1st of April the present campaign gets under way with the theme that tuberculosis causes tuberculosis and every case comes from another. The slogan this year is "Find the Other Case". By stimulating the existing case-finding agencies to closer co-operation it is hoped to reduce still further the death rate from tuberculosis by finding those existing cases which at present are unknown.

It has been estimated that there are three undiscovered cases of tuberculosis to every existing active one.

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OFFICIAL CALL

To the Officers, Fellows, and Members of the American Medical Association:

The eighty-third annual session of the American Medical Association will be held in New Orleans, Louisiana, from Monday, May the ninth, to Friday, May the thirteenth, nineteen hundred and thirty-two.

The House of Delegates will convene on Monday, May the ninth.

The Scientific Assembly of the Association will open with the General Meeting, held on Tuesday, May the tenth, at 8:30 P.M.

The various sections of the Scientific Assembly will meet Wednesday, May the eleventh, at 9:00 A.M. and at 2:00 P.M. and subsequently according to their respective programs.

EDWARD STARR JUDD,
President.

FREDERICK C. WARNSHUIS,
Speaker, House of Delegates.

Attest:

OLIN WEST, *Secretary.*

Chicago, Ill., March 8th.

HOUSE OF DELEGATES

The House of Delegates will convene at 10 a.m. on Monday, May 9, 1932, in the Tip Top Inn of the Roosevelt Hotel, 123 Baronne Street.

REPRESENTATION

The apportionment of delegates made at the Philadelphia session of 1931 entitles your State Association to three delegates for 1932-33-34.

"A member of the House of Delegates must have been a member of the American Medical Association and a Fellow of the Scientific Assembly for at least two years next preceding the session of the House of Delegates at which he is to serve.

"Delegates and alternates from constituent associations shall be elected for two years. Constituent associations entitled to more than one representative shall elect them so that one-half, as near as may be, shall be elected each year. Delegates and alternates elected by the sections, or delegates appointed from the United States Army, United States Navy and United States Public Health Service shall hold office for two years."—Chap. 1, Secs. 1 and 2, By-Laws.

RULES FOR THE GUIDANCE OF THE COMMITTEE ON CREDENTIALS

(Adopted by the House of Delegates at Atlantic City, N. J., June 6, 1912)

1. Credentials shall be of two parts. The first part shall be sent to the office of the Secretary of the American Medical Association by the Secretary of the constituent association, not later than seven days prior to the first day of the first meeting of the House of Delegates, and shall be a list of delegates and alternates for that association. The constituent associations shall designate an alternate for each delegate, who

may take the pledge of the delegate when authorized to do so by said delegate in writing. In the absence of such authority, any alternate who has been duly chosen by the constituent association may be seated in place of any delegate who is unable to attend, provided he presents proper official authority from said association. A certificate signed by the president or secretary of the constituent association shall be deemed legal authority (as amended June 7, 1921).

2. Each delegate shall be furnished with a credential by the secretary of the association by which he is elected on a prescribed form furnished by the Secretary of the American Medical Association, which shall give the date and term for which he was elected and who was elected to act as alternate for him in case of his inability.

3. A delegate, on presenting himself to the Committee on Credentials, may be seated even though he may not present part 2 of his credentials, provided he is properly identified as the delegate who was elected by his association and whose name appears on the Secretary's record.

4. No alternate may be seated unless his credentials meet the same requirements as designated for the delegate and he can show written evidence that he is empowered by his delegate to act for him, except as provided for in Section 1 as amended (as amended June 7, 1921).

SCIENTIFIC ASSEMBLY

The Opening General Meeting, which constitutes the opening exercises of the Scientific Assembly of the Association, will be held Tuesday evening, May 10, 1932, at 8:30. The Sections will meet on Wednesday, Thursday and Friday, May 11, 12 and 13, 1932.

Convening at 9:00 a.m. the Sections on

Surgery, General and Ab-	Nervous and Mental Dis-
dominal,	eases.
Ophthalmology.	Dermatology and Syphil-
	ology.
Diseases of Children.	Gastro - Enterology and
Pharmacology and Thera-	Proctology.
peutics.	Radiology.

Convening at 2:00 p.m. the Sections on

Practice of Medicine.	Pathology and Physiology
Obstetrics, Gynecology	Orthopedic Surgery.
and Abdominal Surgery.	Urology.
Laryngology, Otolology	Preventive and Industrial
and Rhinology.	Medicine and Public
	Health.

REGISTRATION DEPARTMENT

The Registration Department will be open from 8:30 a.m. until 5:30 p.m. on Monday, Tuesday, Wednesday, and Thursday, May 9, 10, 11, and 12, and from 8:30 a.m. to 12:00 noon on Friday, May 13, 1932.

COUNTIES REPORTING FOR 1932

Floyd County Medical Society

The Floyd County Medical Society announces the following officers for 1932:

President—W. B. Floyd, Rome.

HEALTH EDUCATION WEEK

Some days ago the committee on Public Policy and Legislation decided to again hold our Health Education Week, and that it should be along the same lines and follow the same general plan as last year.

Each and every physician is requested to assist the committee in giving to our state a week well worth-while. The activities will begin April 24th and continue through May 1st, covering the same period of time as May Day-Child Health Day. Where it is desired by physicians, outlines for public addresses can be furnished through the State Committee, and often it may be possible to furnish a speaker.

This year there seem to be two outstanding things for us to advocate: periodic health examinations from the cradle to the grave, and adequate pre-natal education and care.

We urge our entire membership to lend co-operation to their communities.

DAN Y. SAGE, M.D.,

Chairman,

Committee on Public Policy and Legislation.

Vice-President, R. C. Maddox, Rome.

Sec'y.-Treas.—Robert M. Harbin, Jr., Rome.

Delegate—J. H. Mull, Rome.

Alt. Delegate—A. F. Routledge, Rome.

Richmond County Medical Society

The Richmond County Medical Society announces the following officers for 1932:

President—W. W. Battey, Jr., Augusta.

Vice-President—E. A. Wilcox, Augusta.

Sec'y.-Treas.—Richard B. Weeks, Augusta.

Delegate—H. M. Michel, Augusta.

Delegate—G. L. Kelly, Augusta.

Alternate Delegate—J. H. Sherman, Augusta.

Alternate Delegate—J. D. Gray, Augusta.

Jefferson County Medical Society

The Jefferson County Medical Society announces the following officers for 1932:

President—S. T. R. Revell, Louisville.

Vice-President—J. J. Pilcher, Wrens.

Sec'y.-Treas.—S. C. Ketchin, Louisville.

Delegate—S. T. R. Revell, Louisville.

Elbert County Medical Society

The Elbert County Medical Society announces the following officers for 1932:

President—F. L. Adams, Elberton.

Vice-President—F. A. Smith, Elberton.

Sec'y.-Treas.—A. S. Johnson, Elberton.

Delegate—D. V. Bailey, Elberton.

Alternate Delegate—A. S. Johnson, Elberton.

SAVANNAH

(Continued from Page 107)



Historic Christ Church where John Wesley preached his first sermon in America.

Points of Historical Interest

20. Granite Seat (D-1)—Where General Oglethorpe spent his first night, February 12, 1733.
21. Tablet on U. S. Custom House (D-1)—Commemorating spot Georgia's first public building; Rev. John Wesley's first sermon preached here; site Oglethorpe's home.
22. Christ Church (D-2)—Here Rev. John Wesley organized first Protestant Sunday School in world.
23. George Washington's Headquarters (C-3).
24. Colonial Park (B-C 3-4)—Christ Church Cemetery.
25. Lowe House (C-5)—Former home of the late Juliette Lowe, founder of Girl Scouts in America.
26. General Sherman's Headquarters (D-5)—Used by Sherman as Headquarters in 1864.
27. Scarboro House (F-2)—Where President Monroe was entertained in 1819.
28. Owen House (C-2)—Where Gen. LaFayette was entertained in 1825. Open to tourists.
29. Beacon Light (A-1)—Erected 1852, to direct ships in harbor of Savannah.
30. Fort Wayne—Erected prior to 1782.

Interesting Buildings and Organizations

31. Chamber of Commerce (D-1)—Junior Chamber of Commerce, Tourist and Road Information, Traffic Department, Convention Department, Publicity and Advertising, and Civic Center.
32. City Hall (D-1)—Note bronze tablet commemorating the voyage of the "Savannah", the first steamship to cross the Atlantic, and the launching of the "John Randolph" July 9, 1834, America's first iron ship.
33. U. S. Custom House (D-1)—Note tablet.
34. Savannah Bank & Trust Co. (D-1).



City Hall.

35. Citizens & Southern National Bank (D-2)—Note tablet marking site of first store of the English Colonists, March 29, 1734.
36. Citizens Bank and Trust Co. (D-2).
37. Liberty Bank & Trust Co. (D-2).
38. Lutheran Church of the Ascension (D-2).
39. U. S. Post Office (D-2)—Federal court chambers and government offices.
40. Chatham County Court House (D-2).
41. Elks Club (D-3)—B. P. O. E. Meeting and Club Rooms.
42. Savannah High School (D-3).
43. Independent Presbyterian Church (D-3).
44. First Baptist Church (D-4).
45. Huntingdon Club (D-4)—Women's Club.
46. Knights of Columbus Club (D-5)—Reading and Meeting Rooms.



Telfair Academy of Arts and Sciences.

47. Y. M. C. A. (D-5)—Club and meeting rooms, gymnasium, swimming pool and guest rooms.
48. Savannah Volunteer Guards (D-5)—One of the oldest military organizations in the U. S.
49. Harmonie Club (D-5)—Jewish club for men.
50. St. John's Episcopal Church (D-5).
51. Masonic Temple (D-5).

Charts describing key numbers may be secured by writing to the Tourist and Convention Bureau, Chamber of Commerce, Savannah.

(To be continued in the April issue of The Journal)

GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. ABERCROMBIE, M.D., *Director*

REGIONAL HEALTH CONFERENCES

Through the cooperation of the Medical Association of Georgia, the Woman's Auxiliary to the Medical Association of Georgia, the Georgia State Dental Society, the Georgia Department of Public Health, and many other organizations plans have been made to hold a number of regional health conferences during the year.

These conferences are to be held in centrally located places over the State and the first ten were held at the following places:

Bainbridge, February 10; Eastman, February 18; Waycross, February 24; Tifton, February 25; Douglas, March 1; Albany, March 2; Americus, March 3; Millen, March 9; Sandersville, March 16; Vidalia, March 23.

During the summer and fall additional conferences will be held through the northern section of the State. The dates for these conferences will be announced at a later date.

Plans are being made to have outstanding members of the Medical Association, the Woman's Auxiliary, and the Dental Society to appear upon the programs, together with other members of the State Department of Health and citizens who are interested in the promotion of better health work.

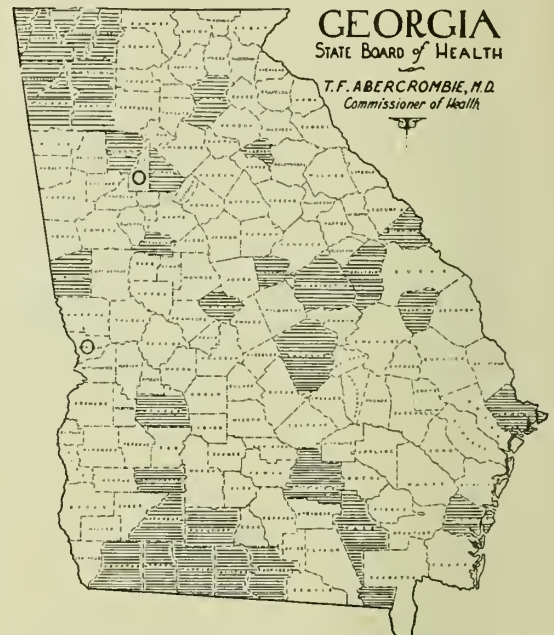
The State of Georgia has an unwarranted death rate from typhoid fever, malaria, and diphtheria, and one of the objects of these conferences is to bring to the attention of the citizens of every section of the State the fact that many of our diseases can be prevented and to show them the value of organized health work.

The county health officers of Georgia are very enthusiastic about these conferences. They think that great good to the entire State will result from these get-together meetings.

THE COUNTY HEALTH UNIT

Georgia's first full-time county health unit was established in 1914, in Glynn County, and the present State Director of Public Health, Dr. T. F. Abercrombie, was elected health officer. Later in this same year, an Act was passed by the General Assembly, providing for the employment of full-time county health officers in every county in Georgia that desired to establish a county health unit.

The full-time county health unit plan has passed beyond the period of skepticism and doubt, when the soundness of its principles was questioned by both members of the medical profession and business men, and it was looked upon as a fad by the uninformed general public. County health work has now come to



Counties operating full-time health units on Jan. 1, 1932.
Circle: City Health Departments Only.

be considered as an absolute necessity for every progressive county and is recognized as a sound business enterprise, which, when conducted properly, will pay greater dividends on the capital invested than any other investment to which the public may contribute.

During the past seventeen years, county health units have been established in twenty-nine of our larger counties and in two health districts composed of seven counties.

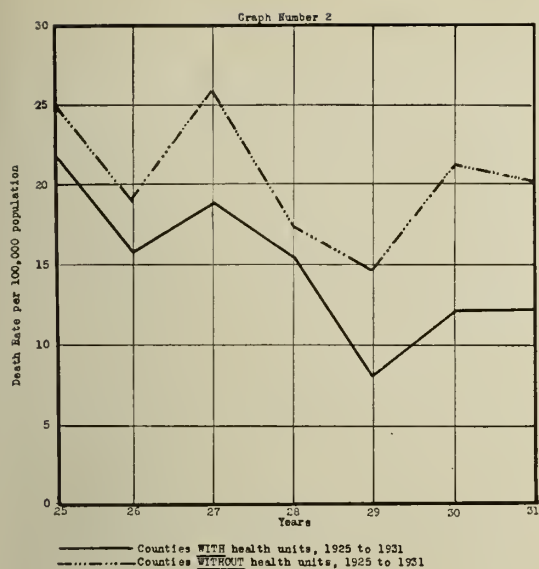
With only thirty-six counties operating full time health units it looks as if slow progress has been made, but in these thirty-six counties more than thirty per cent of the rural population of the state lives.

For economic reasons, adequate full time health service for the small rural Georgia county is usually out of the question. Georgia leads the nation in the number of counties into which the state is divided in proportion to area. It is a recognized fact that the average rural county with a population of less than 20,000 is unwilling to finance adequate health protection. The counties in Georgia are divided according to population as follows:

- 39 counties have more than 20,000 population.
- 32 counties between 15,000 and 20,000 population.
- 35 counties between 10,000 and 15,000 population.
- 48 counties between 5,000 and 10,000 population.
- 7 counties less than 5,000 population.

Taking into consideration both the small population and taxable value of more than 100 Georgia counties, the only possible way to expand health work over the entire state is by forming health districts.

Two such districts are now in operation in north-west Georgia. District Number 1 consists of Walker, Dade, and Chattooga counties. A health officer is in charge of the district, with a personnel of one sanitary engineer for the district and a nurse employed for each county. A similar health district, District Number 2, consists of Whitfield, Catoosa, Murray, and Gordon counties, with a personnel consisting of a health officer,



one sanitary engineer, and a nurse for each county. These two health districts have demonstrated that it is both economic and practical for one health unit to give adequate health protection to two or more counties.

The health service in every county should be continuous. A periodic service for the detection and correction of physical defects and for immunization against such diseases as smallpox, diphtheria, and typhoid fever, might prove reasonably satisfactory if the field of public health were limited to problems of this type. We know that many of the important problems are of an emergency character. No one would be so foolish as to expect an itinerant health unit, available for one or two weeks each year to be able to prevent the spread of diphtheria or typhoid fever in a county. This would be no more reasonable than to propose that a town make an arrangement to have the protection of police or fire departments for two weeks only during each year. The emergency character of many public health activities renders it necessary to have a full time health unit permanently within reach of all parts of the county. As a general rule, results are obtained gradually through continuous and persistent effort by workers who know the people, the roads, the conditions, and can deal with each problem at the most opportune time and in the most tactful manner.

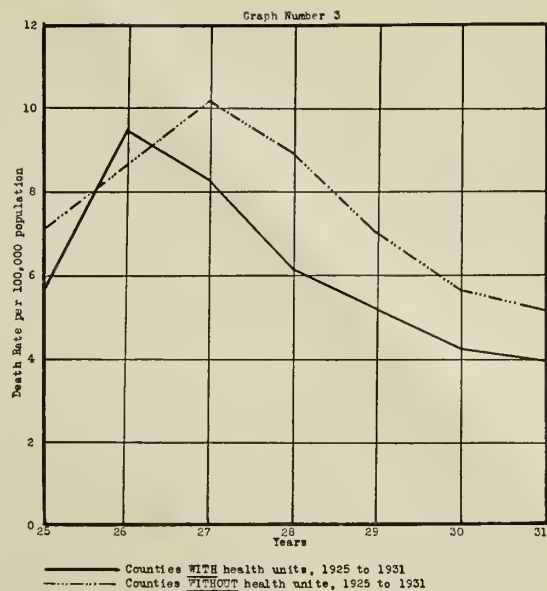
A study of Graph Number 2 and Number 3 will show that health work pays big dividends in saving life and preventing diseases.

The two diseases, typhoid fever and diphtheria, were selected because they are widespread over the entire state. Then all counties operating full time health units continuous from 1925 to 1931 were grouped and the average death rate each year from typhoid fever and diphtheria found. The broken line is the average death rate over the same period from typhoid fever and diphtheria in all counties not operating full time health units.

A study of Graph Number 2 shows a marked decline in the death rate in counties operating full time health units, while in the counties in the state without health units the decline is less than five per 100,000 population during the same period.

Georgia has a high death rate from typhoid fever and our best method of lowering this rate from typhoid is to establish more county health districts.

Graph Number 3 shows the death rate from diphtheria in counties with continuous health work 1925 to 1931, also counties without health work during



the same period. This Graph shows also a marked decline in deaths from diphtheria in counties with health units.

The personnel of a county health unit varies as a general rule. To establish an adequate unit for a county or a health district of twenty-five to forty thousand people, a personnel of four will be necessary. This, however, depends on the population and area to cover.

The personnel should include the following:

A full time county health officer, who must be a qualified physician. He is the director of the department and is held responsible for the public health activities carried on in his county or district.

One full time public health nurse under the direction of the health officer, whose duties are the following: Assisting the county health officer in the examination and immunization of school children; following up all children found with physical defects after school examination and attempting to get parents to carry such children to their family physician for the necessary corrections; home visits to mothers regarding infant and maternity work, preschool work, and instruction to expectant mothers and midwives.

A sanitary engineer or inspector. His duty is to inspect and supervise the sanitation of both public and private premises; to advise and assist in malaria control and the protection of private water supplies; to inspect dairies, food handling establishments, and many other duties.

One full time secretary who will attend to all records, reports, and correspondence, whose entire time during working hours will be spent in the office of the health department.

With very few exceptions, in the districts of two or more counties, a nurse should be employed for each county.

A county with a small population, whose finances are necessarily limited, can have a satisfactory health unit with a personnel of only a health officer and a nurse.

The program of a county health unit varies according to the locality and the disease most prevalent therein. Hookworm and malaria are two diseases peculiar to certain sections.

The average program of a county health unit will be given in the next issue of the Journal. The program will necessarily have to be varied to meet local conditions.

GEORGIA STATE NURSES ASSOCIATION

Officers

President—Miss Alice F. Stewart, R. N., Augusta.
First Vice-President—Miss Dora A. Kershner,
R. N., Macon.

Second Vice-President—Miss Lillian Cumbee,
R. N., Emory University.

Secretary—Miss Florence Pund, R. N., Augusta.

Treasurer—Miss Jane Van De Vrede, R. N.,
Atlanta.

Miss Jane Van De Vrede, R. N.

Executive Secretary

District Presidents

First—Mrs. Dorothy Treacle, R. N., Savannah.

Second—Mrs. B. Y. Vann, R. N., Thomasville.

Fourth—Miss Lucia Massee, R. N., Cuthbert.

Fifth—Mrs. Sue B. Paille, R. N., Atlanta.

Sixth—Mrs. Sarah P. English, R. N., Sandersville.

Seventh—Miss Shirley Hamrick, R. N., Cedartown.

Eighth—Miss Lynda Bray, R. N., Athens.

Ninth—Miss Ruby Falls, R. N., Gainesville.

Tenth—Mrs. Olive Barbin, R. N., Augusta.

Headquarters

131 Forrest Avenue, N. E., Atlanta.

FIFTY WAYS TO USE THE HOURLY NURSE

Fifty ways in which to use the hourly nurse are given in an article by Miriam Ames, R. N., in the December, 1931, number of *Hygeia*, and reprinted by the American Nurses Association. Says Miss Ames:

"This is the age of specialization, when people demand skill in every line of service. Skilled nursing is needed, but because there is so much talk about its prohibitive cost, people often do without it. If the required care can be condensed into an hour or two and this time only paid for, service can be secured by patients and a great deal of expense avoided." Continuing, she says:

"Mr. S. is finishing his fourth week in a hospital and is leaving for home within an hour. For the first three weeks of his illness he had two special nurses, one on day and the other on night duty. During the last week he was able to get along with the day nurse, who agreed to go home with him. . . . Now that Mr. S. is better, he can review the events of the last four weeks. He has paid the nurses and the hospital and has an understanding with his physician concerning the cost of the medical care. As he mentally reckons up the total cost he concludes philosophically, 'It is expensive to be sick, but I am almost as good as new and it is worth it for I have had the best of care.'

"Mr. S. has grown to rely on the ministrations of his faithful nurse, but as convalescence progresses both the physician and nurse suggest tactfully that less nursing is required. 'Oh, let it go another week,' begs the patient, remembering how utterly helpless and miserable he felt during his recent illness when left alone for a moment. 'Some nursing care is still required,' says the doc-

tor, 'but' certainly not more than an hour or two a day. Your nurse tells me she is finding it difficult to keep busy. Let her go and I'll telephone the Hourly Nursing Service to send a nurse to you tomorrow morning at 10:00 o'clock.' At this juncture, Mr. S. reluctantly bows to the inevitable.

" 'What is this Hourly Nursing Service, doctor?'

" 'The name is self-explanatory. She will follow my instructions, make you comfortable and return every day at the same time. In another week, less frequent visits may be made.'

Routine of the Hourly Nurse

"The next day, on the stroke of 10, the hourly nurse appeared. She began her duties immediately and at the end of an hour was ready to leave. Everything was in order and Mr. S. was as comfortable as ever. On the table by his bed the nurse left a small folder which she asked him to read. She then collected her fee, gave Mr. S. a receipt, took her bag and departed with the understanding that she would return the next day.

"Mr. S. settled back on his pillows and picked up the folder entitled 'Hourly Nursing Service'. This is what he read on the first page:

" 'Patients under medical supervision may receive nursing care in their homes for an hour or two a day when continuous care is not needed.

" 'Carefully selected graduate registered nurses are equipped to give any nursing care or treatment ordered by the physician.

" 'Visits by appointment may be arranged either daily or less frequently, between the hours of 8:30 a.m. and 10:00 p.m.

" 'Calls are generally limited to one or two hours. A special relief service may be arranged for three or four hours if necessary.

" 'The nurse will demonstrate to the

family how to care for the patient during her absence.'

"The second page contained several brief suggestions as to the way the service could be used effectively and the final page gave the names of the various officers of the organization.

"The suggestions for the use of the service started a train of thought. 'Everybody ought to know about this service. I'm surprised how well it fills the bill as far as I am concerned and there must be literally hundreds of people who do not require any more care than I. Jones ought to know about it. His wife is coming home from the hospital with a new baby in a day or so. I'll ask my wife to give him this telephone number.'

"As a matter of practical suggestion to those who have not known about the hourly nursing service, the following list is offered as a means of showing what the nurse can do in an hour. The list is compiled from the medical histories kept by the hourly nurses over a period of six months.

Fifty Orders Carried Out This Year

1. Bathed a patient; gave an enema and a hypodermic.
2. Gave a bath and an alcohol rub to an unconscious patient suffering from stroke.
3. Applied a surgical dressing in a post-operative case.
4. Gave treatment for shock following a patient's return from the hospital after an appendectomy. The nurse stayed until the physician arrived.
5. Bathed and gave an alcohol rub to an old person.
6. Applied hot fomentations to a patient's arm; gave an alcohol rub.
7. Gave a colonic irrigation.
8. Assisted a physician with abdominal tapping.
9. Took care of a psychotic patient with osteomyelitis.
10. Gave a hypodermic for trifacial neuralgia.
11. Bathed and dressed a patient with a fractured right arm.
12. Gave enemas to relieve obstruction of the bowel.
13. Kept a patient comfortable for an hour.
14. Gave an enema and applied turpentine stupes.
15. Transferred a patient from the physician's office to the hospital.
16. Bathed and dressed a patient with fractured ankle.
17. Applied hot applications to the back and gave a bath and an alcohol rub.

18. Bathed and dressed a baby and prepared his food formula.

19. Assisted the special nurse to care for an obese patient.

20. Remained with a patient until the twenty-four hour nurse arrived.

21. Special relief service: Cared for a small boy with mumps while the mother was away for the afternoon.

22. Gave an oil rub.

23. Gave a catheterization.

24. Applied a surgical dressing and gave a hypodermic of insulin.

25. Gave a high enema; applied a pneumonia jacket; gave general pneumonia care.

26. Took care of a patient immediately following a stroke.

27. Gave a bladder irrigation.

28. Advised a mother following her return from the hospital with the baby on the general care of an infant.

29. Bathed a child, 10 years old, threatened with pneumonia; instructed the mother.

30. Cared for a child with measles.

31. Assisted a physician in his office at a tonsil operation.

32. Assisted a physician at a circumcision.

33. Irrigated an ear; gave general care.

34. Gave a hot tub bath and oil rub; general care.

35. Cleansed a wound, applied ointment and dressing in a post-operative case; gave an alcohol rub and general care.

36. Gave general massage.

37. Gave a bladder instillation.

38. Took care of a patient in a brace as a result of an injury to the spine.

39. Took care of a three months' old baby; prepared its food.

40. Gave a bath to a patient with arthritis.

41. Gave a shampoo; general care.

42. Gave an epsom salt bath; massage.

43. Instructed a mother in how to feed a baby with a medicine dropper, following an operation for harelip.

44. Gave daily insulin injections.

45. Applied hot packs.

46. Remained with a sick woman between trains.

47. Dressed a patient and got her up in a chair.

48. Remained with the family after a patient had died.

49. Demonstrated the care of bed sores to a member of the family.

50. Gave general care and served the patient her meal.

"The question has been raised as to whether or not work is being taken away from the private duty nurse. As a matter of

fact, work is being turned her way, for 10 per cent of the unimproved cases are transferred to the care of private duty nurses. Too, the private duty nurse occasionally takes an hourly-nursing case while waiting for a full-time case. Hourly nursing is not infringing on the work of the Visiting Nurse Association, because it is definitely an appointment service for which people are willing to pay more than the usual charge made by the visiting nurse. Hourly nursing service is frequently administered by visiting nurses' associations, but if not, there is the closest kind of co-operation between the two agencies."

Believing that hourly nursing is a practical and helpful service which can be satisfactorily carried out wherever there is a nurses' registry, a hospital, clinic, or an organization or group co-operating with the County Medical Society, or with physicians, the nurses of Georgia are offering their services in this connection, and through the district associations and registries will welcome inquiries from physicians and others interested.

FOREIGN BODY IN RECTUM*

Case Report†

MARION C. PRUITT, M.D.
Atlanta

Patient: Negro, age 60; colored Grady Hospital.

Chief Complaint: Piles that protrude and bleed and a bottle in his rectum.

Present Illness: Patient states that he has had piles since a child and that for sometime they have been coming down and bleeding during defecation. They are painful after walking for a long distance or after lifting something heavy. He also states that "there is a little old bottle in my rectum". He says that on Monday of this week (four days ago) he was drinking whiskey with three or four of his colored friends and became quite drunk. Tuesday morning when he awakened he said he had a feeling that his bowels were going to move; he tried to defecate, but failed. He passed his finger into the rectum and says he felt a bottle. "It is just a little old ginger ale bottle that my friends stuck up there." There had been no bowel movement until the morning of admission to the clinic. Since then there has been incontinence of semi-liquid feces.

Examination: A male negro about 60 years of age, well developed and well nourished, somewhat under the influence of whiskey, apparently in no marked pain or distress, but shifts frequently from side to side on his chair, as he gives his history.

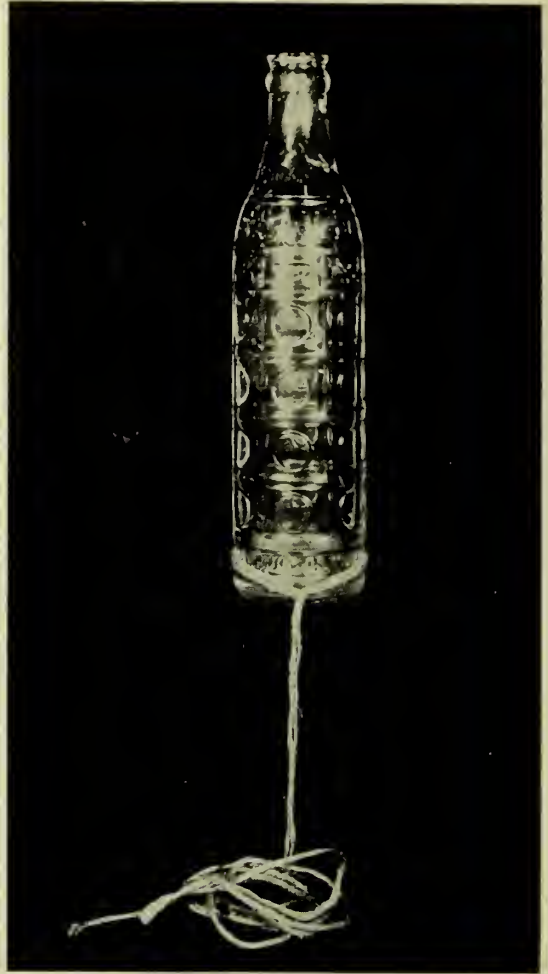


Figure 1.

Proctologic Examination: There is considerable semi-fluid fecal material about the buttocks; the anal orifice is dilated and there is marked edema of the anal tissue. Digital examination reveals a dilated and relaxed sphincter with marked edema, and with the examining finger fully inserted, the base of a large round bottle is felt.

Treatment: Removal without anesthesia in the outpatient department. Extraction was by simple device designed by the author. The loop of a heavy cord was worked about the base of the bottle by means of the index finger, while the bottle was gently pressed downward with a hand over the neck on the abdomen. Removal was by gradual traction on the cord and manipulation of the neck of the bottle. The removal was of a bottle slightly larger than the patient complained. It was a "SkiHi" full size ginger ale bottle. See Fig. 1. It was tightly impacted with fecal material with a strong whiskey odor.

The patient was admitted to the hospital for observation. Twenty-four hours later he complained of considerable soreness in the lower left abdominal quadrant, which disappeared in three or four days. There was gradual return of sphincter control and tone.

*Case reported before the Fulton County Medical Society, Atlanta, Ga., November 19, 1931.

†Case history by W. D. Bourn, Junior Medical Student, Emory University School of Medicine, Service, Proctology.

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 Mrs. N. Overby, Sandersville.
 Mrs. F. B. Rawlings, Sandersville.
 Mrs. T. E. Vickers, Harrison.

Richmond County

Mrs. W. C. Kellogg, President, 2241 Cumming Road, Augusta.
 Mrs. W. W. Battey, Sr., First Vice-President, 428 Sixth Street, Augusta.
 Mrs. G. T. Bernard, Second Vice-President, 921 Meigs Street, Augusta.
 Mrs. H. W. Shaw, Third Vice-President, 439 Broad Street, Augusta.
 Mrs. A. C. Wade, Recording Secretary, 1207 Johns Road, Augusta.
 Mrs. Geo. W. Wright, Corresponding Secretary, 1134 Greene Street, Augusta.
 Mrs. Hugh N. Page, Treasurer, 800 Georgia Avenue, North Augusta.
 Mrs. Joseph Akerman, 831 Fifteenth Street, Augusta.
 Mrs. W. W. Battey, Jr., 2239 Kings Way, Augusta.
 Mrs. J. H. Butler, 1103 Milledge Road, Augusta.
 Mrs. John W. Brittingham, 2559 Walton Way, Augusta.
 Mrs. Ralph H. Chaney, 2571 Henry Street, Augusta.
 Mrs. William J. Cranston, 2749 Walton Way, Augusta.
 Mrs. J. Dewey Gray, Geo. Walton Apartments, Augusta.
 Mrs. L. Palmer Holmes, 2810 Hillcrest Avenue, Augusta.
 Mrs. Asbury Hull, Peachtree Road, Augusta.
 Mrs. G. Lombard Kelly, 940 Russell Street, Augusta.
 Mrs. H. G. Mealing, Martintown Road, Augusta.
 Mrs. Henry M. Michell, 1229 Glenn Avenue, Augusta.
 Mrs. King W. Milligan, 942 Greene Street, Augusta.
 Mrs. T. E. Oertel, 638 Greene Street, Augusta.
 Mrs. Robert L. Rhodes, 2501 Belleview Avenue, Augusta.
 Mrs. E. O. Schnarnitzky, 2270 Central Avenue, Augusta.
 Mrs. R. W. Soper, Lenwood Reservation, Augusta.
 Mrs. V. P. Sydenstricker, 2110 Gardner Street, Augusta.
 Mrs. Geo. A. Traylor, 2311 Kings Way, Augusta.
 Mrs. Peter B. Wright, Park Avenue, Augusta.

ELEVENTH DISTRICT

Ware County

Mrs. W. M. Folks, 425 Williams Street, Waycross.
 Mrs. C. A. Witmer, Vice-President, 501 Gilmore Street, Waycross.
 Mrs. Robert C. Walker, President, 502 Gilmore Street, Waycross.
 Mrs. W. L. Pomeroy, 810 Carswell Avenue, Waycross.
 Mrs. George E. Atwood, 912 Carswell Avenue, Waycross.
 Mrs. D. M. Bradley, 629 Nicholls Street, Waycross.
 Mrs. B. R. Bussell, Hebardville, Ga.
 Mrs. A. W. DeLoach, 801 Folks Street, Waycross.
 Mrs. W. C. Hafford, 229 Riverside Drive, Waycross.
 Mrs. R. L. Johnson, 604 Nicholls Street, Waycross.
 Mrs. H. G. Huey, Homerville.
 Mrs. Kenneth McCullough, 707 Haynes Avenue, Waycross.
 Mrs. B. H. Minchew, 412 Williams Street, Waycross.
 Mrs. W. D. Mixson, 619 Nicholls Street, Waycross.
 Mrs. John E. Penland, 912 Elizabeth Street, Waycross.
 Mrs. W. F. Reavis, Cherokee Heights, Waycross.
 Mrs. Ansley Seaman, Seals Apartments, Gilmore Street, Waycross.
 Mrs. C. M. Stephens, 312 Hill Street, Waycross.
 HONORARY MEMBER
 Mrs. John L. Walker, 502 Gilmore Street, Waycross.

TWELFTH DISTRICT

Dodge-Pulaski-Bleckley Counties

Mrs. J. Cox Wall, President, Eastman.
 Mrs. R. L. Whipple, Vice-President, Cochran.
 Mrs. Warren A. Coleman, Secretary-Treasurer, Eastman.
 Mrs. A. L. Smith, Chairman Educational Fund, Cochran.
 Mrs. W. F. Massey, Chester.
 Mrs. I. J. Parkerson, Eastman.
 Mrs. W. H. Pirkle, Cochran.
 Mrs. E. L. Smith, Eastman.
 Mrs. J. M. Smith, Cochran.
 Mrs. B. W. Yawn, Eastman.
 Mrs. A. J. Malloy, Helena.
 Mrs. A. A. Bush, Hawkinsville.

Laurens County

Mrs. A. T. Coleman, President, Dublin.
 Mrs. J. W. Edmonston, Vice-President, Dublin.
 Mrs. W. C. Thompson, Secretary-Treasurer, Dublin.
 Mrs. E. B. Claxton, Dublin.

Toombs County

Mrs. J. E. Mercer, President, Vidalia.

Wilcox County

Mrs. J. M. C. McAllister, President, Rochelle, Ga.

CONVENTION PLANS

Medical Auxiliary Announces Committees

The Woman's Auxiliary to the Georgia Medical Society is making plans for the entertainment of the state convention which will be held in Savannah in May, at the same time that the doctors hold their annual session.

Mrs. William Shearouse, the President of the Auxiliary, has announced the appointment of the following committee, which will make the necessary pre-convention arrangements:

Entertainment—Mrs. R. V. Martin, Chairman; Mrs. Lee Howard, Mrs. Hugo Johnson, Mrs. William Dancy, Mrs. William Myers, Mrs. H. H. McGee, Jr., Mrs. J. S. Howkins, Mrs. Julian Quattlebaum, Mrs. E. N. Gleanon, Mrs. Charles Usher, Mrs. T. P. Waring, Mrs. E. C. Demmond.

Registration—Mrs. John W. Daniel, Chairman; Mrs. C. R. Riner, Mrs. Rufus Graham.

Transportation—Mrs. William Dancy, Chairman; Mrs. G. T. Olmstead, Mrs. L. W. Shaw.

Publicity—Mrs. E. M. Baker, Jr.

Hospitality—Mrs. H. W. Hesse, Chairman; Mrs. H. Y. Righton, Mrs. E. S. Osborne, Mrs. J. C. Metts, Mrs. H. M. Kandel, Mrs. O. W. Schwalb, Mrs. R. L. Neville, Mrs. A. A. Morrison, Jr.—Savannah Evening Press, Savannah, Ga., February 13, 1932.

BOOKS RECEIVED

A Hand Book of Ocular Therapeutics. By Sanford R. Gifford, M.D., Professor of Ophthalmology, Northwestern University Medical School, Chicago, Ill. Attending Ophthalmologist, Passavant Hospital, Wesley Memorial Hospital, Evanston Hospital. Contains 272 pages with 36 engravings. Publishers: Lea & Febiger, Washington Square, Philadelphia, Pa. Price \$3.25.

Samuel Seabury—A Challenge. By Walter Chambers.

"The life of Samuel Seabury is a stirring inside story of the battle for social reform. An aristocrat from every instinct and tradition, Judge Seabury's entire public life has been devoted to the advocacy of human rights in the administration of justice, and of the rights of the individual as opposed to property." Contains 389 pages. Publishers: The Century Company, 353 Fourth Avenue, New York City.

Electrotherapy and the Elements of Light Therapy.

By Richard Kovacs, M.D., Clinical Professor and Director of Physical Therapy, Polyclinic Medical School and Hospital, New York; Visiting Physiotherapist, Manhattan and Harlem Valley State Hospitals and West Side Hospital; Consulting Physiotherapist, Hackensack Hospital and Mary Immaculate Hospital, Jamaica, N. Y. Contains 528 pages with 211 engravings. Publishers: Lea & Febiger, Washington Square, Philadelphia.

BOOK REVIEW

Ocular Therapeutics. By Sanford R. Gifford, Professor of Ophthalmology, Northwestern University Medical School, Chicago, Ill. Published by Lea and Febiger, Philadelphia, 1932. Pages 272. Engravings 36. Price \$3.25.

This book fills a definite need for a Hand-Book of Ocular Therapeutics which is standard, concise, modern, and written in the English language.

To illustrate the modern character of this fine book a list of its chapter headings follows:

Chapter I—Equipment.

Chapter II—Anesthetics, Narcotics and Hypnotics.

Chapter III—Drugs and Organ Extracts Used in Ophthalmology.

Chapter IV—Specific and Non-Specific Protein Therapy.

Chapter V—Physical Therapy.

Chapter VI—Diseases of the Lids.

Chapter VII—Diseases of the Conjunctiva.

Chapter VIII—Diseases of the Cornea.

Chapter IX—Diseases of the Uveal Tract.

Chapter X—Diseases of the Crystalline Lens.

Chapter XI—Glaucoma.

Chapter XII—Diseases of the Retina.

Chapter XIII—Diseases of the Optic Nerves and Central Visual Pathways.

Chapter XIV—Diseases of the Lacrimal Apparatus.

Chapter XV—Disorders of the Muscular Apparatus.

Chapter XVI—Injuries of the Globe.

The text is well written, the illustrations are clear, and the well-chosen bibliographies at the end of each chapter give adequate facility for collateral reading.

This book should appeal not only to ophthalmologists but to the profession.

EVERT A. BANCKER, JR. M.D.

NEWS ITEMS

The members of the Ocmulgee Medical Society, officers of the Dental Association, and representatives of the Georgia Department of Public Health, met at the courthouse in Eastman on February 18th. The conference was for the purpose of stimulating interest in public health work.

The Georgia Medical Society met at the Medical Society Hall on February 9th. Dr. Wm. B. Crawford, Savannah, read a paper entitled "Common Duct Stone"; Dr. Henry L. Levington, Savannah, case report, "Umbilical Cord, Death of Foetus"; Dr. J. R. Broderick, Savannah, case report, "Recurrent Pneumothorax."

Dr. J. W. Clements, Gore, was honored by the members of the Chattooga County Medical Society, Floyd County Medical Society, and many former patients and friends at a dinner on his ninety-first birthday in the school auditorium at Rome, February 11th.

The Eighth District Medical Society met at Athens on February 10th. The following titles of papers were on the scientific program: "Advantages of Cystoscopy," Dr. M. A. Hubert, Athens; "Contracted Pelvis," Dr. Paul L. Holliday, Athens; "Accessory Sinus Treatment," Dr. J. C. McKinney, Athens; "Enuresis," Dr. W. C. McGeary, Madison; "Surgery of the Neck," Dr. J. Weyman Davis, Athens; "Cancer of the Stomach," Dr. H. M. Fullilove, Athens; "Plastic Surgery," Dr. Stewart R. Brown, Royston; "The Doctor and the Public," Dr. D. N. Thompson, Elberton. Luncheon was served at the Hotel Georgian. Dr. C. J. Decker, Athens, delivered an address before a meeting of the Woman's Auxiliary.

The Glynn County Medical Society and the staff of the Brunswick City Hospital, Brunswick, held a joint meeting at the hospital on February 9th.

Dr. H. M. Sale, formerly of Rayle, has removed to Sharon and will continue the active practice of medicine at the latter location.

The Spalding County Medical Society met at the R. F. Strickland and Son Memorial Hospital, Griffin, on February 16th. Unusual medical cases were discussed.

The Fulton County Medical Society met at the Academy of Medicine, Atlanta, February 18th. Dr. B. T. Beasley, Atlanta, gave a case report, "Radical Amputation of Breast with Restoration of Arm Function"; Dr. Murdock Equen, Atlanta, case report, "Removal of Laryngeal Tumors with Voice Restoration" (presentation of patients and motion pictures); Dr. W. L. Funkhouser, Atlanta, clinical talk, "Post-Vaccinal Encephalitis" (report of two cases); Dr. A. J. Ayers, Atlanta, read a paper entitled "Clinical Laboratory Aids to Diagnosis in General Medicine". Dis-

cussions were led by Dr. E. D. Shanks, Dr. Jas. E. Paullin, and Dr. W. N. Adkins, all of Atlanta.

The Randolph Medical Society met at Cuthbert on March 3rd. Dr. A. L. Crittenden, Shellman, read a paper on "Cancer". Dr. F. M. Martin, Shellman, and Dr. C. K. Sharp, Arlington, gave case reports.

The United States Civil Service Commission announces the following named open competitive examinations: "Senior Medical Officer," "Medical Officer," and "Associate Medical Officer" for diagnosis and treatment of cancer. Applications must be on file with the U. S. Civil Service Commission not later than March 22nd.

The Cook County Medical Society announces that its members will affiliate with the Lowndes County Medical Society.

The Georgia Urological Association, through its Secretary, Dr. Allen F. Caldwell, 912 Grant Building, Atlanta, will arrange programs and provide speakers for meetings to be held in any county or district of the State. The purpose of the meetings is to acquaint men doing general practice with the men in their immediate vicinity who are capable of rendering advice and assistance in any urological emergency. The educational advantages of such meetings are worth fostering. The programs may include other than purely urological subjects, in that venereal diseases may and should receive due attention. Any county or district society interested in such meetings may write to the Secretary for further information.

Dr. J. T. McCall, Rome, has a diploma from the University of South Carolina Medical Department, Columbia, dated 1882, granted to his great-grandfather, Dr. Alvin Dean. Doctor McCall possesses a number of medical books owned by Doctor Dean which are now more than one hundred years old.

The First District Medical Society met at Statesboro, February 24th. Titles for papers on the scientific program were as follows: "Treatment of Comatose Malarial Fever", Dr. R. L. Miller, Waynesboro; "Operative Relief of Diabetic Gangrene", Dr. J. W. Daniel, Jr., Savannah; "Typhoid Fever and Sanitation", Dr. Guy G. Lunsford, Millen; "Concerning the Various Types of Perinephritic Abscesses", Dr. Earl Floyd, Atlanta; "Toxic Reactions Produced by the Derivatives of Barbituric Acid", Dr. Mark S. Dougherty, Jr., Atlanta; "Perthe's Disease of the Hip", Dr. Jas. M. Byne, Jr., Waynesboro; "Added Experience with Spinal Anesthesia", Dr. Geo. W. Fuller, Atlanta; "Bronchial Asthma", Dr. J. R. Broderick, Savannah; "Phreniclasia Operative Paralysis of Phrenic Nerves", Dr. M. J. Egan, Savannah; "Activities of the Public Health Service", Dr. Jno. T. Burkhalter, Savannah; "Antepartum Hemorrhage Ablatio Placentae", Dr. H. F. Bent, Midville; "Disability Following Pressure on Spinal Cord", Dr. Jas. C. Metts, Savannah; "Fractures at the Ankle",

Dr. Charles Usher, Savannah; "Cancer of the Breast", Dr. Chas. C. Harrold, Macon.

The Walker County Medical Society met at Ross-ville, February 26th. The following titles for scientific papers were on the program: "Differential Diagnosis of Acute Appendicitis and Acute Pyelitis", Dr. B. C. Hale, Rossville; "Some of the Causes, Treatments and Preventions of Abortion", Dr. D. W. Hammond, LaFayette; "Vincent's Infection or Trench Mouth", Dr. White, Dentist, Rossville; "Case Report—Unusual X-Ray Findings of the Chest", Dr. Bert Kitchens, LaFayette. The next regular meeting will be held at Chickamauga, March 25th.

The Georgia Medical Society (Chatham county) held its regular meeting on February 23rd. Dr. E. J. Whelan, Savannah, gave a case report on "Acromegaly"; Dr. V. H. Bassett, Savannah, gave a biographical sketch of Dr. John LeConte, who was a member of the Georgia Medical Society in 1845.

Dr. and Mrs. S. T. R. Revell, Louisville, entertained the members of the Jefferson County Medical Society and Auxiliary at their home on February 6th.

The Macon Medical Society (Bibb county) met at the Macon Hospital on March 1st. Dr. W. C. Boswell, Macon, read a paper entitled "Roentgenology as an Aid to Diagnosis and Treatment of Tuberculosis in Children—Case Reports".

A Health Conference was held at Tifton on February 25th. The following speakers were on the program: Dr. T. F. Abercrombie and Dr. M. E. Winchester, Georgia Department of Public Health; Dr. C. L. Ridley, Macon; Dr. J. A. Redfearn, Albany; Dr. T. H. D. Griffiths, Albany; Dr. Hugo Robinson, Albany.

Dr. L. G. Neal, formerly of Gainesville, announces the removal of his office and residence to Cleveland, Georgia.

The National Tuberculosis Association will hold its twenty-eighth annual meeting at Colorado Springs, Col. June 6, 7, 8, 9. The Antlers Hotel will be headquarters. Preliminary program was published in the Bulletin which is the official organ of the Association.

A Regional Health Conference sponsored by the Association, Woman's Auxiliary, State Dental Association and the Georgia Department of Public Health was held at Eastman on February 18th. The following speakers were on the program: Dr. B. H. Minchew, Waycross; Dr. Geo. E. Atwood, Waycross; Dr. Carl B. Welch, Bainbridge; Mrs. Bonar White, Atlanta; Dr. O. H. Cheek, Dublin; Dr. M. E. Winchester, Georgia Department of Public Health, Atlanta.

Dr. M. F. Cochran, Dr. T. S. Bailey, Dr. R. H. McDonald, and Dr. George W. Hammond, all of Newnan, have jointly opened an office in Franklin for the practice of medicine. Each will have certain days for office practice in Franklin.

Dr. W. H. Lott, Monroe, is taking a sixty-day post-graduate course at the New York Polyclinic Medical School and Hospital, New York City. He will resume his practice at Monroe about April 1st.

The Georgia Medical Society (Chatham County) held a call meeting at its hall in Savannah on March 3rd. Dr. Samuel G. Gant, New York City, addressed its members on "Proctology".

BIRTHS

Dr. and Mrs. W. Loomis Pomeroy of Waycross, announce the birth of a daughter on February 27, 1932. She has been named Charlotte.

STATE TUBERCULOSIS SANATORIUM ALTO

Dr. M. F. Haygood, Superintendent of the Sanatorium, has been appointed a member of the committee of the National Tuberculosis Association, which has for its purpose the study and control of tuberculosis among negroes. The program is being financed by the Rosenwald Fund.

Dr. H. C. Schenck, physician in charge of the mobile unit field clinic service of the State Department of Health and the State Tuberculosis Sanatorium, has been conducting clinics in Cobb, Bartow, Spalding, Troup, Heard, Upson, Sumter, and Dougherty counties during February.

Dr. Kellie Joseph delivered an address to the Home Demonstration Agents at the twenty-fifth annual Farmers' Week and Marketing Conference at the State College of Agriculture, on January 28th, on the subject, "What Can Be Done in the Home to Prevent Tuberculosis."

Dr. C. D. Whelchel, of Gainesville, Consultant in Surgery, operated at the Sanatorium February 9th and 11th.

The Sanatorium is pleased to report gratifying progress in the medical care of its patients. At the present time there are 272 patients in the Sanatorium (124 white adults, seventy-six white children, forty-four colored adults, twenty-eight colored children. Of the white adults, fifteen are being treated by artificial pneumothorax, while nine of the colored adults are receiving like treatment. Phrenicectomy has been performed on twenty-one of the patients now in the Sanatorium. At the present time there are no adults in the Sanatorium suffering with bone tuberculosis, although two children are so afflicted. In addition to pulmonary tuberculosis, thirteen patients are suffering with tuberculous laryngitis.

Dental service was introduced into the Sanatorium's program in 1931, and as an example of the need of this service and of what it is accomplishing a brief resume of January's records may be of interest. During that month, about thirty patients were examined and received treatment. The following findings were made: 293 caries, seventy-one abscessed teeth, thirteen gingivi-

tis, twenty-four needed prophylaxis, eight pyorrhoea in early stages, six pyorrhoea in advanced stages. Fifty-five extractions were made, eighty amalgam fillings and two synthetic porcelain fillings.

LEE W. BLITCH, Ph.D.

Alto, Ga.

UNVEILING OF PORTRAIT OF MR. JOHN D. ARCHBOLD

On January 19th, at the John D. Archbold Memorial Hospital, Thomasville, Ga., an oil portrait of the late Mr. John F. Archbold, through whose liberality the hospital was founded, was unveiled. This portrait was secured through a fund made up of voluntary subscriptions contributed by the friends of Mr. Archbold in Thomasville.

An interesting and appropriate program was prepared for the occasion. Miss Frances Archbold, daughter of Mr. John F. Archbold, unveiled the portrait in the presence of a large number of interested friends. On behalf of the donors of the portrait, Judge H. W. Hopkins presented it to the hospital and Dr. A. D. Little made the speech of acceptance.

DR. J. W. CLEMENTS HONORED ON NINETY-FIRST BIRTHDAY

On Thursday, February 11th, a large gathering of medical friends and others of the Seventh District, met at Subligna, Ga., and paid a glowing tribute to their friend and comrade, Dr. J. W. Clements on the occasion of his ninety-first birthday.

Doctor Clements graduated from a medical college in Richmond, Va., the Reform Medical College of Georgia, Atlanta, in 1861, and one in Nashville, Tenn. He holds three diplomas, which he received in the early sixties.

Early in the Civil War he was called to the front and was assistant surgeon in some of the outstanding work of the war. He has a picture in his home of "Stonewall" Jackson when the great general was dying. While he was not present when the general breathed his last, he was near by and states that at that time he was in charge of an apothecary shop which supplied bandages, drugs, and other supplies.

Doctor Clements has practiced medicine in the community where he now lives for sixty-five years, and at this time he still attends the Seventh District Medical Society and takes part in the discussions and shows a very apt mind on medical subjects. He does some practice in the way of consultations and is loved by all who know him.

So far as can be learned, Doctor Clements is the oldest practicing physician in Georgia.

He has lived a long and useful life and attributes it to the fact that he has made it a practice to be temperate in all things. He still loves his profession and never misses an opportunity to attend medical meetings and discuss the past and future of medicine and surgery.

M. M. MCCORD, M.D.

Rome, Ga.

OBITUARY

Dr. Mallie Adkin Clark, Macon: member; Bellevue Hospital Medical College, New York City, 1890; aged 65; died of heart disease at his home, 301 Harde-man Avenue, February 6, 1932. He was born in Russell County, Alabama, and received A.B. and LL. D. degrees at Mercer University, Macon. Doctor Clark began the active practice of medicine at Bluff-ton in 1890, practiced at Barnesville 1892-7, then removed to Macon. Beginning in 1898, he had been continuously on the faculty of Mercer University: Professor of Materia Medica in the Department of Pharmacy, Lecturer on Medical Jurisprudence, College Physician, Dean of the School of Pharmacy, member of the Board of Trustees, and Chairman of the Executive Committee. Doctor Clark was conscientious in all his undertakings, recognized as a man of sterling ability and character, and an eminent physi-cian. His medical practice was limited to internal medicine. He was President of the Medical Association of Georgia 1907-8; served for many years as Par-liamentarian and as Chairman of the Committee on Medical Defense; member of the National Tuberculosis Society, American College of Physicians, Association for the Study of Internal Secretions, Macon Medical Society, Southern Medical Association, American Medical Association, and the First Baptist Church. Surviving him are his widow; three daughters, Mrs. Ralph G. Newton, Mrs. Emmett H. Baker, and Miss Verna Clark, all of Macon. Funeral services were con-ducted from the First Baptist Church by Dr. Louie D. Newton, Pastor of the Druid Hills Baptist Church, Atlanta, assisted by Dr. C. E. Burtz and Dr. J. Ellis Sammons, both of Macon. Members of the Macon Medical Society, trustees, and faculty of Mercer Uni-versity formed an honorary escort. Interment was in Riverside Cemetery.

RESOLUTIONS

WHEREAS: Dr. Mallie Adkin Clark departed this life on February 6, 1932, we desire to record this brief biography of him.

Born in Alabama, September 1, 1866, his parents were Adoriman Judson and Abbie (Morris) Clark.

His preliminary education was obtained under his father's direction, and in 1885 he received his A.B. degree from Mercer University. In 1888 he received from Mercer his A.M. degree, and in 1911 his LL.D. degree. In 1890 he received his M.D. degree from the Bellevue Hospital Medical College. For the several years following he practiced medicine in Bluffton and Barnesville, Ga., coming to Macon in 1897, where he was in active practice up to the time of his death. From 1898 he was on the faculty of Mercer as teacher of Medical Jurisprudence in the Law School, and Materia Medica in the School of Pharmacy. For a number of years he was a member of the Board of Trustees of Mercer University.

As soon as he reached Macon he affiliated himself with the local medical society, of which he was a



Dr. Mallie Adkin Clark (1866-1932)
President 1907-1908



Dr. William Zellers Holliday (1860-1932)
President 1905-1906

valued and active member until his death. He held office in his local society and was past President of the Medical Association of Georgia, and at the time of his death was its Parliamentarian. He was for a long time a Fellow of the A. M. A., also a Fellow of the A. C. P.

He was a member of the staff of the Macon Hospital since shortly after his arrival in Macon, and had been a member of the Governing Board of the hospital and Chairman of the Board. He was ever interested in the welfare of the Macon Hospital.

Doctor Clark was pre-eminently a student, setting apart time every day for real study. His knowledge of medical science was well-nigh encyclopedic. Those who sought of him information often said he seemed not to forget anything he had read. He was always glad to give of his time and talents to those who sought his assistance, and, though we might not agree with him, we respected his opinion. With him his profession was his life; his recreation was study of science and literature. To his parents he was devoted and felt keenly their sorrows and enjoyed with them their joys. His desire for a long time had been to go about in his day's work and, after finishing it, to lie down and go to sleep, to awake in that other Land. His death

was due to carditis, which he had known for over twenty years was his pairment.

RESOLVED THAT: In the passing of Doctor Clark our profession and this community have lost a wise counsellor, a faithful friend, and a beloved physician, and we desire to express our sincere sympathy to his family in this hour of bereavement.

RESOLVED FURTHER: That a page of the minutes of this society be set apart to his memory and a copy of these resolutions be sent to his family.

MACON MEDICAL SOCIETY.

Jas. A. Fountain, M.D., President.

Dr. William Zellers Holliday, Atlanta; member; University of Maryland School of Medicine and College of Physicians and Surgeons, Baltimore, 1882; aged 72; died at his home, 1144 Crescent Avenue, on February 20, 1932. He was born and reared in Wilkes County. He took postgraduate work at Johns Hopkins University School of Medicine, Baltimore, and studied in Scotland. Doctor Holliday began his professional career in Harlem. Later he moved to Augusta, thence to Atlanta. While a resident of Augusta, he was the first professor of pediatrics

in the Medical Department of the University of Georgia, served as a member of the Richmond County Board of Education, Director of the Young Men's Christian Association, and Trustee of the Masonic Hall, Augusta; President of the Richmond County Medical Society; President of the Medical Association of Georgia, 1905-6; member of the Fulton County Medical Society, the Gate City Masonic Lodge, and the Ponce de Leon Baptist Church. Surviving him are his widow and one daughter, Miss Edith Holliday, Atlanta. Funeral services were conducted from the Spring Hill Funeral Parlors by Rev. L. R. Christie. Interment was in the city cemetery at Washington.

RESOLUTIONS

Dr. Wm. Zellers Holliday was taken from our midst by the hand of Divine Providence, February 20, 1932. He was born at Washington, Wilkes County, Georgia, January 4, 1860, being the son of Allen F. and Elizabeth Zellers Holliday. He spent the early years of his life on the farm, where he received that training in industry, perseverance, and self-denial which constitutes the basis of honorable living. His early education was received in the neighborhood schools, in which he became proficient in Latin, Greek, and higher mathematics. At the age of nineteen he began the study of medicine in the office of Dr. John L. Wilkes at Lincolnton. He also studied in the office of Dr. Joseph W. Sanders of Penfield. He thus prepared himself for higher medical training by these preliminary courses of study and in 1880 he entered the University of Maryland Medical School, from which he was graduated in 1882. After his graduation he practiced for a short time at Harlem, Ga. Later he moved to Augusta, where he became one of the outstanding pediatricians in that section of the State. He was professor of pediatrics at the Medical College of Georgia for many years. He was elected to the Presidency of the Richmond County Medical Society five times in a period of twelve years. In 1905 he was elected to the Presidency of the Medical Association of Georgia, and under his stewardship the Association prospered remarkably and the number of members increased in one year more than in any previous decade. Doctor Holliday took an active interest in civic, social, and political affairs. He was also active in the affairs of Masonry and the Young Men's Christian Association. When his health began to fail he retired from the practice of medicine and later moved to Atlanta, where, on account of invalidism, his active interest in medical affairs was necessarily limited, but even to the last he showed a keen interest in the latest developments of medical science. He was a member of the Medical Association of Georgia and an honorary member of the Fulton County Medical Society.

Whereas, Almighty Providence has seen fit to take from our midst one of our most valuable and outstanding members, and

Whereas, his death is an incalculable loss to the community, the medical profession, and to members

of his family; therefore, be it resolved, that the Fulton County Medical Society express its deepest sympathy to his wife and daughter, and that a copy of these resolutions be spread on the minutes, a copy sent to the Journal of the Medical Association of Georgia, and one to the members of his family.

JAS. N. BRAWNER, M.D.,
Chairman.

ARTHUR G. FORT, M.D.

LEWIS M. GAINES, M.D.
Committee.

Dr. Samuel R. Harbin, Canton; member; Georgia College Eclectic Medicine and Surgery, Atlanta, 1898; aged 60; died at his home on January 20, 1932. He was widely known as a physician and a life-long citizen of Cherokee County. Doctor Harbin enjoyed an extensive practice in Cherokee and adjoining counties until a few years ago, on account of ill health, he was forced to retire from active practice. He was held in high esteem by a large circle of friends. Doctor Harbin was a leader in civic affairs, a member of the Cherokee County Medical Society, and the Baptist Church. Surviving him are his widow; three daughters, Mrs. Roy McClesky, Atlanta; Mrs. Walter Quarles, Ball Ground; Miss Jeffie Harbin, Canton; three sons, Oddie, Tillman, and Wallace Harbin, all of Canton. Funeral services were conducted by Dr. T. Barron Gibson from the First Baptist Church and interment was in the Buffington Cemetery.

Dr. Malcolm M. Currie, Alston; member; College of Physicians and Surgeons, Baltimore, Md., 1888; aged 79; died at his home on February 12, 1932. He was one of the pioneer physicians of Montgomery County. The first drug store in the county was established and operated by him. Doctor Currie had an extensive practice and was one of the best-known physicians in Montgomery and adjoining counties. He built the first hospital erected in Toombs County. Doctor Currie took postgraduate courses at Johns Hopkins University School of Medicine, Baltimore, and was a skilled practitioner. Surviving him are his widow; two daughters, Mrs. O. W. Kitchens, Byromville, and Miss Anna Currie, Alston; one son, W. D. Currie, Uvalda. Funeral services were conducted from the home by Rev. C. W. Hightower and interment was in the city cemetery at Ailey.

INFORMATION

To Our Members:

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Mead Johnson & Company announces an award of \$15,000 to be given to the investigator or group of investigators producing the most conclusive research on the vitamin A requirements of human beings.

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Candidates for the award must be physicians or biochemists, residents of the United States or Canada who are not in the employ of any commercial house. Manuscripts must be accepted for publication before December 31, 1934, by a recognized scientific journal. Investigations shall be essentially clinical in nature, although animal experimentation may be employed secondarily.

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The Committee on Award will consist of eminent authorities who are not connected with Mead Johnson & Company, the names of whom will be announced later.

Source of Supplies

There are no restrictions regarding the source of Vitamin A employed in these investigations.

For other details of the Mead Johnson Vitamin A Clinical Research Award, see special announcement, pages 14 and 15, in Journal of the A. M. A., January 30, 1932.

TUBERCULOSIS—EARLY DIAGNOSIS CAMPAIGN

(Continued from Page 109)

This campaign is a nation-wide educational effort and will involve the closer cooperation of health officers, physicians, public health nurses, social workers, tuberculosis associations, and community leaders. The meeting of the Fulton County Medical Society on April 21st will be turned over to the Atlanta Tuberculosis Association for a symposium on tuberculosis and at this time stress will be given to this most worthy health campaign. Pamphlets are being dis-

tributed by our numerous agencies to teachers, doctors, students, and other groups.

Let's all pull together and do our bit toward furthering this noble cause.

CHAMP H. HOLMES, M.D.,
Chairman

Early Diagnosis Committee.

THE CRAWFORD W. LONG MEMORIAL HOSPITAL ESTABLISHES MATERNITY CENTER

The Crawford W. Long Memorial Hospital of Atlanta has established a free maternity center for those patients financially unable to obtain prenatal care from private physicians. The maternity center has been endowed by Dr. and Mrs. L. C. Fisher. Patients referred to the center will be examined and cared for during pregnancy and referred back to their family physicians for delivery. The hospital will make special prices to this class of patients.

RARE AMINO ACIDS NOW AVAILABLE

New information on feeding problems is expected to result from the announcement that the Research Division of S. M. A. Corporation is able to supply certain rare amino acids and other protein derivatives to research physicians and others interested in research in nutrition.

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The first number of the American Journal of Cancer was published in January, 1931. Five issues were published during the year with a total of more than 3,000 pages. The original articles covered most all phases of cancer research. Interest in the subject of cancer has been stimulated by an increase in the disease.

HOTEL DE SOTO

Savannah

Headquarters eighty-third Annual Session of the Association, May 17-18-19-20.

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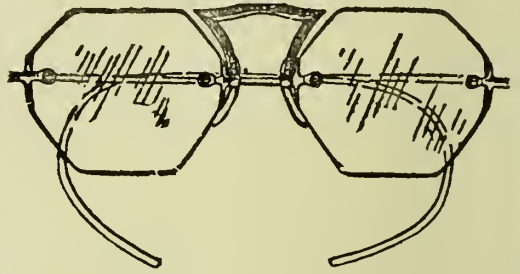
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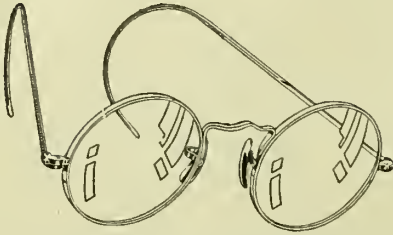
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UNEXPECTED POSTOPERATIVE INFECTIONS*

R. M. HARBIN, M.D.
Rome

The habit of entirely depending on a revision of the general technique in aseptic procedure of the operating room following unexpected infections is more or less disappointing. The fact that a great majority of cases operated on under the same routine remain clean compels us to look elsewhere for contributing causes. The same may be said concerning the cat-gut question. A disconcerting fact arises in the presence of infection in the larger clinics where no expense is spared in the sterilizing equipments of the operating room and where research studies have been carried to the nth degree. In all clinics major and minor postoperative infections still confront the surgeon. There seems to be a universal conscientious endeavor to minimize these hazards. Judd¹¹ of the Mayo Clinic says: "The principles of asepsis are not all definitely established yet, for in spite of all precautions occasionally an infection occurs that is unexplainable. Some condition within the patient may be responsible. Not always are these unexpected infections due to contamination."

Generally speaking, an unexpected infection is usually one delayed in its manifestation and the cause is difficult to find. The more rapid types would reflect some gross error of aseptic technic. In some cases, when we feel that we have done a clean open operation for fracture, infection makes its appearance and, occasionally, when a laparotomy patient is about to be discharged, fluctuating pus appears in the incision. Our view of this complex problem has been too narrow because we have depended too much on the research department of the laboratory and

ignored certain general practical considerations. For this reason my discussion will be more of a clinical nature based on personal experience which, being a valuable asset, is always subject to revision. In my experience an unexpected postoperative infection has rarely been serious.

In the first place we are compelled to accept the truism that absolute asepsis is impossible and that degrees of such are more or less relative. In the next place we must not fail to consider the remarkable powers of the average human organism in overcoming border-line infections. In emphasizing the former we have neglected the latter and failed to put the patient in the best position to utilize these conservative processes. Different regions of the body possess different degrees of resistance to infection. For instance, the upper peritoneum is less resistant than the lower. Potential infections are more liable to become active in hernia, bone and joint wounds, etc. It is a clinical fact that the peritoneum is more resistant under favorable conditions to low-grade infections than the layers of the abdominal wall. Herman found that the peritoneum is four or five times more resistant to the staphylococcus aureus than the skin. However, active infections are more disastrous in the former. Much has been said of individual resistance as a factor in infections. It is my belief that in the absence of pre-existing infection, conditions of so-called lowered resistance are of negligible importance for the reason that so many substandard patients with anemia, under-nutrition, surgical shock, etc., have about as great a percentage of clean wounds as other patients. Of course, diabetes and jaundice constitute a well-known menace. Surgeons often attribute disturbances of wound repair and unexpected infection to syphilis, but, according to Scheffey,¹⁰ there is no practical difference in syphilitic and nonsyphilitic

*Read before the Surgical Section of the Medical Association of Georgia, Atlanta, Ga., May 14, 1931.

cases, whether given preoperative or postoperative specific treatment.

In the smaller sterilizing plants an intelligent plumber should keep himself familiar with the machinery by periodic inspections. An operating room supervisor who knows that water boils over the instruments, that steam pressure remains a certain point for a specific time, and that the thermometer in the autoclave registers 121° C. has thus far covered every practical precaution. The main question in sterilizing gloves hinges on the contingency of what would happen in the case of accidental puncture. As no living skin can be made absolutely sterile, dry gloves obviously would be less safe while an accident in the presence of a weak solution of bichloride of mercury would be mitigated in the wet glove. For reasons of economy the wet glove has the preference, and because of the surgeon's hands the dry glove is more comfortable. For obvious reasons there are more possible slips in aseptic technique in preparing dry gloves. So passing the responsibility to the operating supervisor does not seem warranted and the surgeon must accept his obligation to work out the problem of unexpected infections.

Air-borne infections of wounds are exceedingly rare, but an infection by the streptococcus hemolyticus has been reported by Meleney and Stevens.⁷ Perhaps more study and research have been spent on skin sterilization than any other department of aseptic technique and a generally accepted method has not yet been evolved. We used the iodine method for ten years and then for the last ten years have applied the alcohol-bichloride sequence and have seen little difference, but have some preference for the latter. While the bactericidal effect is feeble, clinical observation leads us to believe that alcohol (75 per cent) is very valuable in increasing the resistance of the skin to infections. In either method skin contact and noncontact with the intestines has seemed without effect in the absence of trauma. The usual infective organisms of the skin are the staphylococcus albus and aureus, colon bacillus, and rarely the streptococcus,³ these which cause stitch abscesses and constitute by far the less preva-

lent form of postoperative infection. An important query arises: Is not the skin occasionally overtreated and made less resistant by the trauma of scrubbing and chemical irritation? Schumann,⁶ as well as other authorities, claim that by far the greater majority of infections proceed from within instead of from without. While it is safe to say that all clinics, large and small, cover the hazards just mentioned, there are certain modifying conditions that have not received sufficient consideration which may be enumerated as follows: surgical trauma, hemostasis, dead space, suture tension, mechanical immobilization, and border-line necessity for drainage. While any one of these factors may be conserved under favorable circumstances they usually combine in various ways to activate potential infections. It will be readily granted that safeguarding these errors is not an easy task. In the healing of wounds generally, reparative processes at their best offer the greatest safeguard against infection, and any condition that delays wound repair serves to invite infection.

Ordinary trauma tends to devitalize tissue, thereby lowering resistance to potential infections. Experimenters⁹ have demonstrated that traumatized tissue in animals can be infected because of lowered resistance by means of injecting infective organisms into the blood stream. This possibility should be thought of in the occurrence of local infections. Surgical trauma or ill-advised surgery with undue manipulation lowers resistance of tissues and at the same time opens up more lymphatic channels for absorption. The pernicious habit of incising diffuse infections of the face, neck, and the various forms of cellulitis cannot be too strongly condemned, as such infections under the influence of rest and hot wet applications used early would frequently become abortive. Incisions should be reserved for definite accumulations of pus. It is fortunate that the great force applied by retractors causes so little trauma to the abdominal wall. Evisceration, with traction on the mesentery, constitutes a serious menace and the cost of such should be carefully counted. The necessary trauma involved in removing an elongated embedded postcecal

appendix attached high up is very frequently followed by suppuration which otherwise would not occur. The necessary packs and pressure in withholding the intestines is a cause of postoperative gas pains from traumatizing the delicate peritoneal coats and, of course, frequently aggravates the tendency to infection. It may be remarked in passing that spinal anesthesia reduces the degree of unavoidable trauma by lessening intra-abdominal tension. The surgical trauma in many cholecystectomies involving a highly organized region constitutes a great menace which for mitigation requires drainage. Unless suppurations are definitely localized it is an open question whether secondary laparotomy in postoperative infections would not open up more lymphatic channels for absorption, furthering the spread of peritonitis, than is offset by the possible advantages of better drainage. We should constantly bear in mind that physiological rest and the comfort of the patient, with an ample fluid content, go a great way towards relieving potential infections from unavoidable surgical trauma, and it is wise to ask ourselves at times if our postoperative treatment is not meddlesome.

If there is one earmark of a good surgeon it is the meticulous care shown in his efforts to obtain hemostasis, for a dry wound heals more rapidly. Every bleeding point that requires a hemostat should be tied with a ligature, and where oozing cannot be checked by heat and pressure, means for its escape should be provided, and if undue hemorrhage must be, it should have an easy outlet, unhampered by suture tension, or else packed or drained. The habit of expecting a blood clot to become organized is very disappointing.

Stagnation seems to be an offense against every physiological process and is a menace to wound repair. If dead space cannot be closed the wound should be drained. The familiar pocket left after excision of a sebaceous cyst will usually heal clean if drained. Perhaps the most common occurrence of dead space lies between the fascial surfaces and skin in abdominal incisions and should be safeguarded by through and through silk worm gut sutures, along with a skin suture line that will allow for capillary drainage. Dress-

ings on the third day that show no bloody discharge indicate pent-up serum that will appear later. Ideal incisions should be dry inside and more or less moist outside, for airtight skin sutures are a menace.

Tension from sutures or any other cause lowers resistance and tends to devitalize the tissues involved. This fact should be remembered in suturing fat and fascia. The subcutaneous layer¹² of fat is endowed with a greater degree of vascularity than the deeper layers, more especially in the obese type of patient, and the vitality of fat at best is very vulnerable to trauma and tension. As fascia has no vascularity and depends on an environment of fat for its own integrity, it also is less resistant to trauma and tension. This leads us to believe that the habit of removing all fat from fascia should be deprecated, especially in hernial repair. These facts tend to explain the undue incidence of post-operative infections in hernial repair generally. It seems to be a clinical fact that potential infections, especially in media of low resistance, have a longer period of incubation. Anatomical closure and surgical approximation are different quantities in suturing wounds. The former is pleasing to the eye, but the latter attains the best results for prompt healing. The so-called air-tight, or anatomical, closure fails to facilitate capillary drainage, which is so necessary for a dry wound, as the currents of serum wash away the medium for potential infections. Surgical approximation is a high art that maintains apposition of cut surfaces that admit capillarity by the aid of pressure from dressings and bandages. Through and through sutures should never be applied for tension, but a reserve for the buried sutures, at the same time obliterating dead space. Sections of small rubber tubing should be threaded on these sutures in order to prevent burying of same and safeguard puckering of the skin; especially in the presence of excessive fat, due allowance for capillary drainage should be made in the suture line of the fascia of muscles. The superficial skin sutures require great care, for the reason that healing takes place here earlier than in other layers. The perpendicular cut surfaces of the skin should be allowed to fall to a parallel

approximation line that leaves no puckering of the skin, in order to prevent inversion of the edges which is usually not apparent from a casual observation. Our preference is for the use of the round cambric needle with black silk sutures which pierce the skin and subcutaneous fat at right angles well away from the cut edges and tied without any puckering. If the tendency to inversion will not likely be ironed out by the pressure of dressings a small superficial suture may be needed occasionally. Hartwell¹² calls attention to the fact that a layer of subcutaneous fat is very essential to prompt healing of the skin line of incision for dermis and fascia have no powers within themselves to repair surgical wounds and mechanical conditions should be made favorable for such repair. Any undue tension is therefore a menace. An over-ambition for security of abdominal supports has led us into unconscious errors. One error is in overlooking the discomfort of the patient in the belief that it is necessary to have a tight bandage. Generally speaking, a well-sutured abdominal incision in the recumbent position needs no pressure support except for cases of vomiting and tympany, and for this reason the primary application of strips of adhesive plaster should allow for the subsequent development of distention. The horizontal weather-board type of application does not allow for flexion of the thighs without wrinkling. It has been our habit to apply a long strip of adhesive plaster at the middle of and at right angles to the incision and then shorter strips above and below that converge to a point behind the sacrum-like slices of a watermelon. Retraction of thighs will not slacken this type of dressing. Over-tight dressing is a common error in hernial repair. Snug dressings, however, become very necessary when the patient begins to sit up. We should remember that every kind of discomfort of the patient is a possible contribution to potential infections.

It is universally agreed that immobilization of parts affected puts nature at her best for prompt healing of wounds, and this doctrine should receive a more extended application in the elimination of potential infections. We have learned this lesson well in the heal-

ing of fractures and joint wounds, but we have not appreciated the full importance of immobilizing the intestines after operation, and we cannot reduce peristalsis to zero, but we can indirectly lessen same by opiates and starving. The great danger of wounds of the lungs is due to the impossibility of immobilization. While the general comfort of the patient is paramount, the ambition to avoid the use of opiates defeats this effort on the theory that they promote intestinal stasis, which is generally mitigated by a starving regime. It should be remembered that acidosis, while aggravated by dehydration, is in the main a result of toxins from infection. So the restriction of the oral intake of fluids for the first three days is one effort at immobilization of peristaltic wave, and after the third day the fate of border-line infection is determined. The theory of the starvation treatment of peritonitis with opiates is as sound as it is old, but the same theory has been neglected in the prevention of peritonitis. We have made standing orders for every case of peritoneal drainage to be given the treatment for peritonitis, viz., starving the stomach, saline solutions per rectum, Fowler position and opiates p.r.n.

The stump of the appendix is perhaps the most common factor of unexpected post-operative infections because of the impossibility of sterilizing same, gross appearances being unreliable. Fortunately, however, such infections can usually be prevented in the majority and mitigated in all cases through efforts at immobilization, etc., as already discussed. Even with the greatest care the superficial layers of the incision may get contaminated by the stump. After treating the stump a strip of gauze sponge is applied and then pushed back and allowed to remain until the incision is well-nigh closed. In the absence of complications, symptoms of dehydration practically never appear on a three-day restriction of fluids by the mouth. While not yet in evidence the fate of border-line infection is determined at the end of three days, and after satisfactory bowel movements the patient may be allowed fluids and foods tentatively, and until this stabilization stage arrives no satisfactory response to laxatives

can usually be expected. It is reasonable to assume that many of the unexplained rises of postoperative temperatures that spontaneously disappear are evidences of the successful issue of these conservative processes and it is a fortunate provision of nature that under favorable circumstances deep infections become localized and discharge finally through the incision. Potential infection in the stump of the appendix can be better conserved in the open in order that the peritoneum may have time to build bulwarks against such infection. Inverted stumps create a pent-house for incubation of infections that are liable to burst forth into an unguarded peritoneum, for such accumulations practically never discharge into the cecum. It should be remembered that some of these infections may be attended with no rise of temperature. Other things being equal, higher temperatures may be noted in preoperative and postoperative infections of the postcecal space. In border-line cases the controversy of whether to drain when in doubt, or when in doubt do not drain, still wages, and under such circumstances it becomes wise for the experienced surgeon to ask himself which policy has caused more serious regrets. I have repeatedly come near losing border-line patients from not having drained, while I cannot recall a case of serious danger from having drained unnecessarily. Spontaneous drainage of unexpected infections leave much greater damage to the abdominal wall than a drainage tube applied to anticipate such infection. We are at times compelled to overcome the conviction that drainage is an offense to surgical pride. In the practice of surgery there arise dilemmas in which any procedure may carry potential hazards, and under such circumstances a duty arises in the wise choice of evils. It should be remembered that, while drainage in potential spreads of infection tends to concentrate such infections, such concentration tends to stimulate the processes that insure localization. Questions of drainage should be decided on the spot, according to the gross appearance of conditions. There has been a divided opinion among the several operators in our clinic for the past ten years, but it now seems the rule of drainage when in doubt

and has gained greater confidence. The criteria for the indications of drainage are very indefinite, but, other things being equal, the longer the duration of disease the more urgent is the need of drainage as the time element increases the virulence of infections, the length of operation and the amount of surgical trauma having had due consideration.

Summary

1. Prompt healing of wounds being one of the best safeguards against postoperative infections the intimate processes of such repair become a subject for further research studies.

2. Being more or less relative absolute asepsis in surgical wounds is impossible and potential infections often become provoked by certain overlooked modifying conditions.

3. The conservative processes of the human organism unimpeded go a great way under favorable circumstances towards eliminating border-line infections.

4. Occurring more or less in all clinics postoperative infections in the majority of cases can be either prevented or mitigated by a more careful consideration of the following factors which combine in all sorts of ways in activating low-grade infections:

- a. Greater care in eliminating surgical trauma which includes meddlesome surgery.
- b. Religious efforts of hemostasis to obtain dry wounds inside.
- c. Careful obliteration of dead space and consequent stagnation.
- d. The avoidance of all forms of wound tension which lessens vascularity, especially in tissues of low resistance.
- e. Direct and indirect immobilization of parts involved.
- f. Solving the problem of drainage in border-line cases.

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DISCUSSION ON PAPER BY DR. HARBIN

Dr. Ben H. Clifton, Atlanta, Ga.—I want to commend Doctor Harbin for this very timely and interesting paper. His papers always are interesting and timely. He has brought out the fact that this question of surgery is serious business, because we do not know what is going to happen. One of the unexpected things, of course, is an infection. The infection is usually due to the ordinary pyogenic organisms, but it may be due to gas bacillus infection, tetanus, and so on.

When we have an infection we are all inclined to blame it on somebody else and say the operating room supervisor did not sterilize the instruments or the cat gut manufacturer did not furnish sterile cat gut, etc. But I am inclined to think that we are all more or less to blame for our own infections. As Doctor Harbin brought out, every skin is more or less infected; therefore, when you make an incision through the skin there is always a potential infection. Nature is practically always able to take care of this potential infection, unless nature is interfered with; and that interference is brought about by excessive trauma, using excessive amount of cat gut, tying too big masses of tissue, thereby leaving devitalized or dead tissue in the incision; also by lack of drainage, and by the too close approximation of tissues. Deaver said sutures were made to approximate and not strangulate. When we put in our approximation sutures, if we are not careful we may actually kill the tissues or devitalize them and thus interfere with nature's forces. That is, I think, one very important factor in post-operative infection. When we remember that if one bacteria in a clean incision divides every half hour, and each in turn divides every half hour, we can see how many bacteria will be present in twenty-four hours. That is a good illustration, I think, of how nature takes care of a potential infection, because most clean wounds, I think, are potentially infected. In most of them, of course, nature kills the bacteria and there are no local manifestations whatever. If, however, bacteria are present in great numbers, and nature's forces are below par, there will be a very rapidly developing infection and perhaps death.

I believe if Doctor Harbin's thoughts as to rest, proper care in hemostasis, and proper drainage were carried out in every case we would certainly have fewer infections, preventing a possible mortality and certainly preventing morbidity and expense to the patient.

Dr. T. C. Davison, Atlanta, Ga.—Mr. Chairman, this matter of postoperative infection is a big question, and I appreciate Doctor Harbin's bringing the matter before us. I think it is such a vital question that it would not hurt us to discuss it often.

In preparing the skin before operation, I think all clinics and hospitals have tried various preparations, for the reason that they all fail sometimes. Most recently, at the Grady Hospital, we have tried the various mercurial preparations, iodine, iodine washed off with alcohol, and we have made a series of tests by taking a small section of the patient's skin and culturing it after these various preparations. The pathologists have reported that the best results were shown from painting with the iodine and leaving it on, putting it on before putting on the towels, letting it dry, and leaving it on; but even that does not prevent some infection.

I should like to stress trauma in the wound. A clean-cut surgical incision is less likely to show infection than one that is traumatized. How often have you walked into an operating room and seen a surgeon make a small incision and then stretch it with the hand? Why not make the incision larger to begin

with, instead of traumatising it with your hand? Perhaps we all do it at times unconsciously.

Then stretching the wounds too much, and tying the sutures too tight. If you do not watch yourself or your assistant you will find you are tying your sutures as if you were ligating the common carotid artery, which is a great mistake.

I think spinal anesthesia will help to lower the percentage of surgical infections, because it gives greater relaxation and does away with the use of so many abdominal packs and retractors.

Prolonged operations lower the patient's vitality, and of course infection is more likely to occur; or, rather, with the lowering of the patient's resistance, nature is less able to take care of the infection.

Dr. George Y. Massenburg, Macon, Ga.—I have had several untoward things happen in my short experience. When I was an interne in Baltimore in suturing wounds they were doing through-and-through sutures, doing continuous suture of the skin and then putting silver foil over the wound. During the two years I was there we were having a number of wound infections. The interne (I) got cussed out; the operating room nurse got cussed out; everybody was cussed out. Where was the infection coming from?

I left there and went to Panama. There was a doctor there who had been educated in France, and his wound closures were not done with the meticulous care with which they were done in Baltimore. He used silkworm gut and did not approximate the wounds so tightly.

I believe every wound potentially infected; with the warmth, the serum, there is everything necessary for bacterial growth. Wound healing depends, on the one hand, on nutrition and, on the other hand, on its drainage. Don't suture the wound too tightly. Don't suture the skin too closely together, so you will not get natural drainage; and, on the other hand, don't tie the sutures too tightly, so you will not get the proper nutrition.

In the last eighteen months or two years I have had three gallbladder wounds break open—a most unhappy experience to have; most terrifying when they call you and tell you a wound has broken open and some of the intestinal contents are hanging out. There is something besides extrinsic causes that affects wound healing. I believe there are intrinsic forces, things we do not yet know; and we blame ourselves and the operating room nurses for poor technic. In these three cases, two had the intestines break through. Two had jaundice. I thought I was being reasonably careful in my wound closures. All three of them were fat individuals. I had a colleague who had gallstones and common duct obstruction. Having so recently had this experience, I thought, in closing him up, there was one wound that was not going to break open; so every detail that I could think of in the care of the wound was observed. I was a little bit anxious about it. I closed him carefully, using retention sutures and careful closure by layers, and put a little drain in the

top of the wound. I drained the common duct and gallbladder. The temperature was normal, and everything went fine. I let the retention sutures stay in a little longer than usual. It appeared as though we would have no difficulty, and the wound looked fine. On the ninth day I took out the retention sutures, and on the tenth day they called me down; his wound had broken open.

These things, happening in three gallbladder cases, rather incline me to believe there is something within the individual in gallbladder and liver conditions oftentimes that causes poor healing, and we, in constantly looking for explanations, unnecessarily place the blame upon our assistants and upon our operating room nurses.

Dr. W. A. Selman, Atlanta, Ga.—I want to call attention to two points. One has not been mentioned; that is further infection in the presence of infection already there. A great number of my cases, especially of appendicitis are already infected; there is an abscess about the appendix. The point I want to bring out is that we all drain, but in a distended abdomen we close the sheath of the rectus muscle right down close to drains; and a rectus sheath, in the presence of distention, after about eight days' drainage, instead of getting less and less, is getting more and more. Instead of colon bacillus infection there is dead tissue. The whole sheath of the rectus, between the upper and the lower end, will slough off. Then the wound has to granulate and take longer to heal. Instead of closing the rectus sheath right down to your drain, if you will pack that with iodoform gauze it will keep the intestine from knuckling up to your drains. Pack it for a few days, then tighten your ligatures, and you will get quicker healing.

The next point I want to bring out is in regard to Doctor Massenburg's reference to upper abdominal wounds—and who has not had them break open? Most of my gallbladder work is cystostomy; I drain much oftener than I remove, many surgeons to the contrary. If instead of bringing a drain through the original incision, make a stab wound near the costal border for the drain, I think the stab drain will make a lower point of exit, and it stops the discharge from coming out through the original incision and leaves a smaller abdominal wound. Stab drains are small, and a hernia will not protrude through them.

Dr. George A. Traylor, Augusta, Ga.—Doctor Harbin's paper is a very timely one; and in addition to the measures we now employ to prevent infection in clean wounds we have much to learn. As he has said infections may be exogenous or endogenous, but for practical purposes I believe we should regard all as coming from without. However, it would seem that incidences occurring similar to the one reported by Doctor Massenburg could be classed as coming from within. The writer has mentioned the elimination of dead spaces; and I think this cannot be too strongly emphasized.

DIFFERENT PHASES OF
ENCEPHALITIS LETHARGICA*

Clinic

LEWIS M. GAINES, M.D.
Atlanta

When in 1919 encephalitis lethargica first appeared in America in epidemic form, those of us who began to see these cases were frequently confused and led astray by the great diversity of symptoms and physical signs obtained. Within a few years I had accumulated a series of sixty cases which presented an outstanding array of manifestations. The classical symptoms were considered to be lethargy which gave the disease the popular name of "sleeping sickness", cranial nerve palsies, and, at some time in the course of the disease, fever which might be either very slight or very high. However, great numbers of the cases did not correspond to this picture.

After a lapse of months or even several years a certain proportion of the cases developed symptoms in many respects identical with Parkinson's disease, and these cases were spoken of as post-encephalitic Parkinson's disease.

When the disease first appeared there was usually to be obtained a history quite characteristic of influenza, and further experience has confirmed this idea, but it has become probable that what was spoken of as influenza was really the onset of the acute stage of encephalitis itself. Occasionally, however, it is impossible to obtain a history of this type of onset as will be shown in one of the cases herewith presented.

At the present time the conception of the disease as suggested by Barker seems to me to be in keeping with our knowledge as we look back over the past twelve years: The first or acute stage in which there is usually fever with focal phenomena pointing to organic disease of the brain; the second or post-acute stage in which after a period of apparent recovery extending over weeks, months, or even several years a variety of subjective complaints make their appearance resembling psycho-neurotic states. In this stage spinal

fluid examinations may be helpful in diagnosis. Finally, the third or chronic stage in which Parkinsonian symptoms either with or without other motor, vegetative, or psychic manifestations make their appearance and either with or without fever and symptoms somewhat reminiscent of the first stage. This stage further points to focal lesions in the central nervous system.

It is rather interesting to note a certain analogy between encephalitis and syphilis. In the latter disease there is the primary invasion which is usually quite readily controlled by even insufficient treatment. Then follows a period of quiescence or apparent cure which may last for many years. Finally certain grave symptoms make their appearance, particularly in the cardio vascular system or the central nervous system, more rarely in other locations. In encephalitis the whole process apparently is confined to the central nervous system in so far as the seat of infection is concerned, although in the febrile stage there is quite probably a general toxemia. During the stage of invasion at the onset of the disease, the symptoms are usually characteristic, but many unusual and bizarre types are encountered. Sometimes the diagnosis rests largely upon the presence of even slight fever and changes in the spinal fluid. After a variable length of time the patient makes an apparent recovery and for a varying period which may extend to several years remains free of complaint. Then there may appear what might even be called the tertiary stage as already indicated.

The two cases which are presented here illustrate the third, or tertiary, phase of encephalitis.

Case 1: Mrs. J. S., age 31, was seen in a neighboring town in January, 1931. She gave a history of a delirious state and fever over a period of about ten days two years previously. She apparently recovered completely until July, 1930, when her husband noticed that she was "slowing up" in her movements and speech and to some extent in her interests, that she was becoming a little tremulous in her hands and arms, that in walking she tended to shuffle her feet along, and that there was a tendency to accumulate weight. These symptoms gradually increased, and when seen by me she had been running for a week or ten days an irregular temperature of from 99 to 100 and was somewhat lethargic during the day, but restless at night. A spinal fluid examination was essen-

*Informal clinic before the Surgical Section of the Medical Association of Georgia, Atlanta, Ga., May 13, 1931.

tially negative, but of not marked value as the cell count had not been made immediately after withdrawing the fluid.

On examination the patient presented a classical picture of Parkinson's syndrome. She had the mask-like expression, the infrequent winking of the eyes, and swallowing, at times some tendency of drooling of saliva, the monotonous voice, and in walking, the loss of associated movements of the arms.

This patient had a definite, acute onset of encephalitis with apparent complete recovery. There is no evidence of a secondary or post-acute stage resembling a psycho-neurotic state. She did, however, after a lapse of about two years develop evidence of the third stage which Barker has referred to as the myastatic stage. She presented at this time a picture which we have learned to quickly recognize and deplore; the picture of Parkinson's disease occurring in a comparatively young individual who gives a history quite definitely suggestive of an encephalitis at some time in the past.

Before discussing the treatment and subsequent course of this patient, the second case will be related.

Case 2: Mrs. R. N., age 28, was first seen December 28, 1930. Her complaint was trembling of the hands and to a less extent of the legs and slowing up of all of her voluntary movements.

Very careful and prolonged questioning failed to reveal any history of any illness since infancy. She stated that she had never been subject to cough, colds, or sore throat, and had never had influenza nor any other illness suggestive of influenza.

The history was that she first began to notice these symptoms in July, 1928. The tremors were noted first in the right hand and arm, but in a few days extended to the left hand and arm, and about six months later the same tendency appeared in the legs. There was also noted rigidity of the muscles and slowing up of voluntary movements.

On examination the patient sat in the chair with her hands in her lap exhibiting a typical Parkinsonian tremor, a trifle more marked on the right. The tremor was most marked when the patient was at rest and almost disappeared on voluntary movements and ceased during sleep. The face was without expression, there was a marked diminution in the frequency of winking and loss of associated movements of the arms in walking.

A most interesting and instructive feature of this case was the impossibility of obtaining any history suggestive of an acute onset. There are probably many cases in which the stage of onset is so mild as to pass unnoticed. There may be perhaps slight malaise of brief duration and other symptoms so trivial that they are soon forgotten and a physician not consulted.

As exemplified in this case, however, the final stage may be quite as distressing as in cases with a severe type of onset. It was thus impossible in this patient to know the duration of the period of quiescence, but it may be confidently stated that at sometime in the past she had an acute encephalitis.

Treatment

I shall confine my remarks simply to the treatment of the Parkinson type. The treatment which seems to be of the greatest value at present is purely symptomatic and palliative and in no sense curative. It consists in the administration of stramonium. The drug must be given in full doses to obtain satisfactory results. A fresh preparation of the tincture is perhaps most satisfactory as it enables one to change the doses more readily. In an adult a dose of thirty drops three times a day may be used at the beginning and this dose may be increased a drop each day until definite improvement is noted, particularly in the tremor, in the lessening of rigidity, and in the salivation which is sometimes quite distressing.

The first case reported obtained very marked relief when she received eighty drops. The dose was then gradually diminished, and after her dose was below sixty drops she noted a tendency for the symptoms to return. The patient was then instructed to again increase her dosage, and after about two weeks, when she returned for observation there was still no improvement. It was then suspected that the preparation of stramonium which she had had lost its potency. She had been obtaining her preparation from a drug store in a neighboring town. A fresh preparation of the tincture was obtained in Atlanta and this preparation had only recently been received from the manufacturer. After remaining on this new preparation for two weeks and using a dropper which dropped a minimum at each drop, the patient again exhibited definite and satisfactory improvement. This improvement applied particularly to the tremor and to the mental depression and general slowing up. Walking continued to be an effort, and she complained that she lacked her old freedom of stride. However, she was tremendously better in her ability to resume her usual activities and was able to get out, to drive her car in moderation, and to resume the majority of her interests in life. She even attempted to sing in the church choir, but this proved too ambitious a program for her as the excitement incident to this public appearance produced a rather marked resumption of her old tremor, which, however, was fortunately only temporary.

This patient is at present taking 70 minims three times a day which seems to be the optimum dose for her and will probably have to be continued indefinitely unless there is evidence of toxic effect.

The principal uncomfortable symptom produced by stramonium is the effect on the eyes. The pupils are dilated and the accommodation is impaired so that reading becomes difficult. There have been reported, however, in cases taking large doses of stramonium, none who has showed any evidence of damage to the eyes. Another discomfort produced by the use of stramonium is the dryness of the mouth. In patients who suffer an increased amount of saliva and a tendency to drooling as the first case did, this is a most happy result. In the second case, however, the dryness was a source of some discomfort. The patient

stated, however, that her relief from tremor was so great that the discomfort of dryness in the mouth was hardly worth mentioning.

In the second case the tincture of stramonium was also used with remarkably satisfactory results in the relief of all of the symptoms. The dropper which she used, it might be noted, delivered about 1/2 minim a drop. She began with 30 drops three times a day after meals and increased her dosage a drop each day until she reached 60 drops three times a day. The improvement was prompt and progressive. Two and a half months after treatment had been begun she felt that the tremor had diminished fully 75 per cent, the stiffness and rigidity of the muscles had to a very large degree lessened so that she was able to do her house work with complete ease and could walk with little difficulty. When she was last seen on April 29, 1931, she was taking 56 drops three times a day and she and her husband estimated that there was from 85 to 90 per cent improvement of all of the symptoms. The tremors had almost entirely ceased except for a slight movement in one thumb. Of considerable interest is the fact that the associated movements of the arms in walking have re-appeared although not quite as complete as in a normal individual.

Stramonium may be given in pill form or capsules after the optimum dose has been determined, but the two patients whose histories have been thus detailed have preferred to remain on the tincture which has the advantage of giving more flexibility in dosage.

One final word might be said regarding stramonium. I have been informed by a leading pharmacist that seven out of ten druggists will fill a prescription for the tincture by diluting the fluid extract which may have been upon the shelves for a long time and be practically useless. It is, therefore, of considerable importance to obtain a fresh preparation of the tincture from the manufacturer, and not to give a patient more than two or three weeks' supply at a time. The preparation should be kept in a dark place and every effort made to protect it from deterioration.

In my experience stramonium is more effective and easier for the patients to take than is hyoscine and should be the drug of choice, reserving hyoscine for those cases that may not show a satisfactory improvement with stramonium.

Of considerable less importance, but perhaps of some value, is the use of foreign protein therapy. Hypodermic injection of sterile milk or other protein has been recommended particularly in the acute phase of the disease.

A somewhat unusual feature of the first case was the occurrence of a febrile period when she was first seen, and this method was employed. The fever soon subsided. Of course it is impossible to determine whether it would have subsided spontaneously or whether its disappearance was the result of the method employed.

In summary it may be said that there are a great many cases of this chronic phase of encephalitis exhibiting Parkinsonian symptoms. I have felt that many of them were not duly recognized. I based this feeling on the history that patients give of having consulted various physicians who gave them little satisfaction in the way of opinion as to diagnosis and advice as to treatment. Although the method of treatment here suggested and which is by no means original is not curative so far as is now known, it makes life so much more bearable and a considerable amount of activity possible that it is a tremendous boon to these sufferers.

This dreadful disease should be thought of in its entirety and the symptoms not considered as isolated phenomena. Perhaps this is the most instructive feature to be gleaned from a study of such cases as those which have been brought to your attention at this time.

ANTIDOTES FOR STRYCHNINE POISONING

HOWARD W. HAGGARD and LEON A. GREENBERG, New Haven, Conn. (*Journal A. M. A.*, April 2, 1932), describe experiments in which they demonstrated that magnesium sulphate does not prevent or even diminish strychnine convulsions in rats. It is not an antidote for strychnine. Apomorphine controls convulsions in rats, and dogs. It allows recovery after approximately twice the lethal dose of strychnine, but not when the dose is three times the lethal amount. Strychnine does not antagonize apomorphine or even diminish its toxicity for rats. The authors report three cases in which the use of apomorphine was followed by recovery in human beings who had taken presumably lethal amounts of strychnine. Phenobarbital sodium controls strychnine convulsion in rats and dogs. Recovery follows the administration of five times the lethal dose of strychnine. A true antagonism between the actions of phenobarbital sodium and strychnine is indicated. Rats and dogs that have received amounts of phenobarbital as high as three times the lethal dose may be saved by the administration of amounts of strychnine which by themselves would be fatal.

THE DIAGNOSIS OF MEDIASTINAL TUMOR*

Case Report

ROBERT C. PENDERGRASS, M.D.
Americus

The recent advances in the diagnosis of primary mediastinal and pulmonary tumors have been contemporary with increased skill in roentgen examination of the chest. In spite of improvements in technique and increased experience in interpretation, it yet remains impossible to always make a definite diagnosis of the type of tumor from the roentgen findings alone. In some cases all one can say is that a tumor is present, and then assign a provisional diagnosis in the light of the roentgen findings considered in conjunction with the history, laboratory, and clinical findings in the case. The radiologists' opinion may be of considerable weight in determining the operability of intrathoracic tumors. Tudor Edwards¹, in 1927, reported seven operable cases of intrathoracic new growths, and his paper exhibits excellent correlation of the roentgen and clinical findings. L. R. Sante's recent volume, "The Chest", contains well illustrated sections on pulmonary and mediastinal tumors².

While it is not within the scope of this paper to offer a diagnostic scheme for the differentiation of masses in the mediastinum, two conditions, often confused with mediastinal neoplasms, should be mentioned. They are aneurysm and Pott's abscess of the mediastinum. Aneurysms in particular offer many perplexing problems, since they are of tumor density, may occur at various mediastinal levels, do not always exhibit expansile pulsations, and may give rise to varied symptom complexes through the medium of dissecting rupture. C. S. Williamson,³ in 1929, published an excellent article dealing with thoracic aneurysms and their differential diagnosis. The devious courses pursued by a Pott's abscess, and the large size obtained by some before a diagnosis is made, may easily offer confusion with mediastinal tumor.

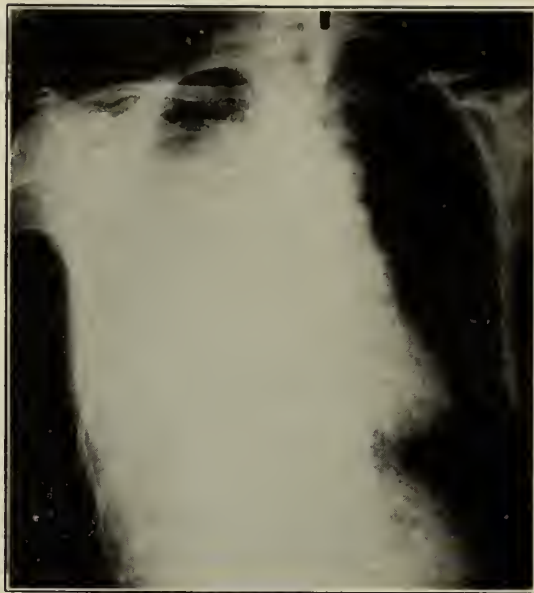


Figure 1
Showing hydro-pneumothorax. Note rounded shadow projecting from mediastinum into area of pneumothorax.

The frequency with which primary lung and mediastinal tumors simulate cardiac pathology make careful roentgen examination imperative. The increasing use of roentgen apparatus by practitioners will probably result in the finding of more mediastinal neoplasms at an early stage, yet constant care must be exercised in order not to overlook such lesions.

The following case is reported because it illustrates the importance of a painstaking study of every case, the surprising results sometimes obtained by re-examination after evacuation of massive pleural effusions, and some of the common symptoms of lung tumor, as emphasized by Bonner⁴ in a recent paper.

Case 16565: A white housewife, age 64, was referred to the clinic by her family physician, July 10th, 1930, the chief complaints being "wheezing and coughing, and shortness of breath".

The family and marital history revealed nothing of note. The patient had had an attack of pleurisy ten years previously. At various times she had suffered from arthritic pains in the hands and shoulders. She was a victim of constipation and had a hemorrhoidectomy performed in 1910, but for the past several months had passed clay colored stools. There were no genito-urinary symptoms. She was of a somewhat nervous disposition.

For the past six or eight months, there had been shortness of breath; a dry, hacking cough and severe attacks of pain in the upper right abdomen, radiat-

*From the Wise, Smith and Anderson Clinic, Americus, Georgia.

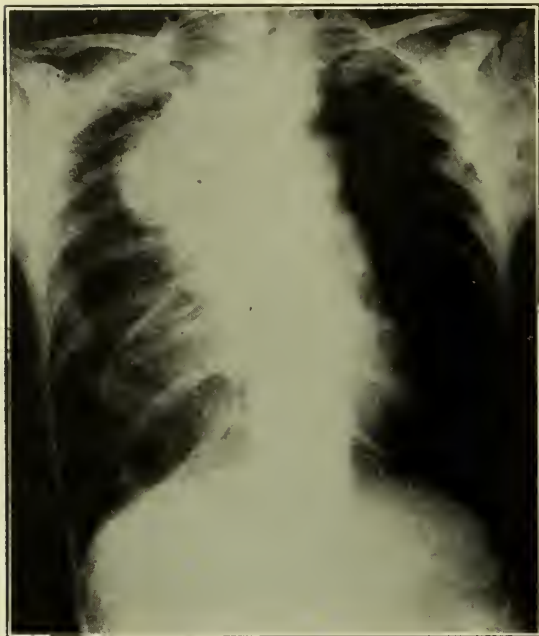


Figure 2
After aspiration. Note the nodular tumor, partial pneumothorax and partially distended lung.

ing to the chest and shoulder on the same side. The pain seemed to be precipitated by any attempt at deep inspiration. Recently she sweated profusely at night, her feet had begun to swell, and slight exertion had become very tiring. There was some vague abdominal distress after eating, much gas in the abdomen, and a general complaint of "indigestion".

The dyspnea, cough, and easily produced fatigue upon exertion had led to treatment for "heart trouble", without beneficial results.

On June 2, 1930, she was examined elsewhere. The examination including roentgen studies of the chest and the stomach. She was told that there was no trouble with the stomach, and that "there was trouble in the chest", but the exact nature of the chest condition was not made clear. For the past month, the dyspnea, cough and pain had increased in severity, and she had become noticeably weaker.

Physical examination showed an elderly female who was obviously dyspneic. The movements of the right chest wall were limited and there was slight bulging of the interspaces. Over the right lung apex anteriorly percussion yielded a hyperresonant note and there was an absence of breath sounds. The remainder of the right chest was flat on percussion and breath sounds were absent in the axilla and anteriorly, but faint posteriorly. The heart was displaced to the left. The pulse was 90 and regular. The blood pressure was 130/90. The left chest was clear. The lower border of the liver was about two fingerbreadths below the right costal margin and tender to palpation. No masses could be felt in the abdomen. The reflexes were sluggish but present throughout. Vaginal examination revealed nothing.

Laboratory findings: Complete blood counts were

essentially normal except for a white blood count of 9,900. Both Wassermann and Kahn tests of the blood were negative. Urinalysis showed pus, one plus in an uncatheterized specimen.

Roentgen study of the abdomen, stomach, and chest yielded the following findings: "Kidneys normal in size, shape and position. No calculi noted. Liver about two inches below right costal margin. No gallstones seen.

Right chest is filled with fluid to level of third rib anteriorly. Above this there is an area of pneumothorax, within the mesial border of which, and at the mediastinum, is the shadow of an indefinite mass. The heart and aorta, and the barium filled esophagus, are displaced to the left. The pneumothorax on the right varies with change in position of patient on fluoroscopic tilt table. The left lung is clear. (Fig. 1.)

The stomach lies in the left abdomen, the pylorus and duodenal bulb are abnormally far to the left, apparently displaced by the ptosed liver. The gastric and duodenal tonus are normal and there are no filling defects of the stomach or the duodenum. Progress of the meal is normal up to 48 hours, at which time there is moderate stasis in a spastic, ptosed colon. No evidence of organic lesion of the intestinal tract."

On the following day, 2800 cc. of blood tinged, brownish fluid was aspirated from the right chest and the roentgen examination repeated. This disclosed a nodular, irregular mass extending from the right mediastinum into the upper right lung. There was no pulsation of the mass. The right lung had contracted to about two-thirds its normal size. The heart had almost returned to its normal position. The right diaphragm was smooth and normal in position. The left lung remained clear. My impression was tumor of the mediastinum and right lung. (Fig. 2.)

The patient experienced considerable relief after removal of the fluid. On July 12, 1930, it was decided to begin deep roentgen therapy over the tumor mass, and the patient was given treatment with the following factors: 180KV-4ma-50cmfsd-3/4 mm. Cu. and 1mm. Al filters—15x15 cm. port—post. chest area—30 mins. time. There was no marked reaction from this radiation.

One week later, July 18, 1930, roentgen examination of the chest showed a fluid level on the right extending to the fourth rib anteriorly, and a persistence of a partial pneumothorax. After aspiration of the fluid, the mass showed no change in size. The patient's temperature was 102, and the leucocyte count 10,200, a slight rise over the preceding count.

It was decided to discontinue roentgen therapy, and the patient was allowed to return home under the care of her family physician. Ten days later, aspiration of the chest yielded 1,200 cc. of fluid of the same character as previously obtained. After one week, aspiration yielded 800 cc. Ten days later, aspiration was again done, and only 500 cc. of fluid obtained. The physical signs over the chest indicated expansion of the formerly collapsed lung. There was much pain in the right shoulder region at this time, but no bony

tumor could be palpated. No further roentgen studies were obtained.

During the period from July 18 to September 20, the patient grew noticeably weaker, the pain in the right shoulder became so severe that opiates were required for relief, and there were periodic attacks of severe dyspnea, accompanied by a harassing cough. She lost her appetite rapidly, and in the last two weeks of her illness nausea and vomiting were fairly frequent. Even then, no abdominal masses could be palpated. Death occurred September 20, 1930, approximately 70 days from the date of her admission to the clinic, and about nine months from the onset of symptoms. No autopsy was obtained. However, the patient's age, the clinical course and the roentgen appearance of the tumor, led to a presumptive diagnosis of carcinoma of the mediastinum and right lung, with hydro-pneumothorax. It was notable that at no time could enlarged lymphatics be detected in the neck, axilla or groin.

Summary

The necessity for a careful roentgen study in the diagnosis of mediastinal tumors is emphasized. Aneurysm and Pott's abscess are mentioned as two of the most confusing lesions. Mediastinal tumor may also clinically simulate cardiac disease.

A case of mediastinal tumor is reported, with a co-existent hydropneumothorax. This case illustrates some of the common symptoms of lung tumor: pain in the chest and shoulder, dyspnea, and cough. These symptoms had led to treatment for "heart trouble" before correct diagnosis was established.

The value of re-examination of the chest after evacuation of fluid is demonstrated. In this case, such evacuation provided a partial pneumothorax, also of diagnostic value.

No conclusions can be drawn from this case as to the efficacy of roentgen therapy of mediastinal tumors, due to the early cessation of treatment in view of the unfavorable clinical course.

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The American Heart Association will hold its scientific session in the New Orleans Municipal Auditorium, New Orleans, Tuesday, May 10th, 9:30 A. M. to 5:30 P. M. Its meetings will be held during the next session of the American Medical Association and all interested members are invited to attend.

PELLAGRA*

C. H. FERGUSON, M. D.
Thomasville

Pellagra has been an unsolved problem in Europe for the past 200 years. The first scientific description of the disease is credited to Gaspar Casal of Spain, whose observations were made in 1735, but were not published until 1762. Later reports showed the existence of the disease in many other European countries. It is endemic in France, Italy and parts of the United States, especially the southern sections. Many authors believe that the Biblical account of leprosy was no other disease than pellagra in its more severe form. In the United States sporadic cases occurred as early as 1864, but pellagra was not generally recognized until 1907-1908, when Searcy of Alabama reported an outbreak in a state institution. Immediately after this outbreak its prevalence was reported from practically all parts of the South and many sections of the North. Pellagra is a reportable disease in Mississippi. Pellagra, at present, is so prevalent in the rural districts of the southern United States that it is a serious menace to economic growth and development.

Pellagra is usually a chronic disease, although acute fulminating cases occur; the greatest frequency is in tropical and sub-tropical zones. The characteristic lesions are dermatological, gastro-intestinal and nervous phenomena of various types and intensiveness, frequently summarized as the three D's—dermatitis, diarrhoea, and dementia. The etiological factors may be summarized with the three M's—corn meal, salt meat, and molasses.

There are several theories as to the cause of pellagra, the one theory superseding the other. We are aware that all the ideas of today may be subject to sharp revision five years from now, just as the ideas of ten years ago have undergone marked changes. The research worker finds it his duty to test and re-examine the accepted scientific ideas and to modify or reject them when he finds it necessary. Endless inquiry and verification

*Read before the Second District Medical Society, Bainbridge, Ga., April 10, 1931.

is the very life blood of science. The most plausible theory is that developed by Goldberger. The painstaking investigations of Goldberger and his co-workers, have been sufficiently clear and thorough to permit sound judgment as to the cause of pellagra. Attempts to communicate pellagra by blood inoculation, saliva and body discharges from pellagrins have been unsuccessful. Goldberger has produced pellagra in individuals by specific diet. He has also produced the disease "black tongue" in dogs, which is the *analogue* of pellagra in man. Furthermore, Goldberger has also relieved pellagrins of the symptoms of their disease by special diet.

It was thought in the early days when Goldberger and his co-workers definitely fixed the cause of pellagra as an error in diet or a food deficiency that protein was the food element of the greatest importance in the treatment. Further experience showed that the deficiency was due to certain substances in food, which has been designated as the P. P. or pellagra preventing vitamin. At present the American designation of this element is vitamin G, or the same as vitamin B2 of the British chemists.

Children do not complain of the same symptoms as do adults. The burning sensations and other prominent phenomena are usually absent. Careful history will establish the incidence of sore tongue, sore mouth, diarrhoea, indigestion and possible skin lesions that may be taken for sunburns. After a study of these findings and a careful inquiry relative to the diet, we can usually arrive at the diagnosis of pellagra.

The most distinctive feature in pellagra is dermatitis. A symmetrical erythema of the exposed parts of the body surfaces is found. In 90 to 95 per cent of cases the symmetry is so perfect that the skin lesions of one side are an exact pattern of the lesion on the other side; and the demarcations are also exactly symmetrical on the two sides. The characteristic lesions are more frequent on the back of the hands and wrists, the face and neck, crests of the ilia and vertebral spine. The rough pigmented area sometimes seen around the neck, as described by Casal, is very characteristic and is known as Casal's collar. Associated with the lesions are usual-

ly sore mouth and diarrhoea; and vaginitis in the female.

The chief complaint of patients include loss of appetite, general weakness, nervous sensations and mental depression. Many cases of pellagra are like the well advanced cases of tuberculosis. When the diagnosis can be made by the laymen, treatment is usually too late. If the physician waits until the evidence of the disease is so obvious that one look is sufficient, the treatment, no matter how energetic, frequently fails. When the spinal cord and brain cells show degeneration, treatment is fruitless, just as in pernicious anaemia, when spinal lesions occur, repair will not take place in the degenerated nerve tracts. One must bear in mind that pellagra is two to six times more prevalent than the experience of the average physician would indicate. One needs the keenest observation and the most careful history in the diagnosis of the early cases.

Laboratory investigations offer little assistance in the diagnosis of pellagra that is of a contemporary kind. We should cultivate the habit of looking carefully at the patient's facial expression, general appearance and behavior, and learn to estimate their importance and significance, as the diagnosis in pellagra is made by close attention to the symptomology of the patient. Recognizing that pellagra is prevalent in certain locations, usually rural, especially in times of economic stress, our minds should be keenly alive to the signs and symptoms of pellagra. Suspicion should be aroused by the occurrences in patients of loss of strength, indigestion, and nervousness; headache, insomnia, and dizziness. The pellagrin often complains of many abdominal symptoms that would indicate surgical procedure, that it is well for surgeons to bear in mind. If the indigestion, discomfort in the epigastrium and periods of constipation and diarrhoea are accompanied by burning sensations in the hands and feet, sore mouth and reddened tongue, the evidence of pellagra is more definite. The skin lesions may vary in degree and intensiveness; in some cases there is only a roughened or weathered skin.

In about 10 per cent of pellagra cases, mental symptoms develop which may vary

from mild depression to a maniacal delirium. Degenerative changes occur in the brain cells, and the spinal cord; usually the cord lesions occur first in the lumbar regions. The changes in the gastro-intestinal tract show areas of congestions, hemorrhagic areas, and ulcerations, suggesting a chronic intoxication, rather than an infection.

An alcoholic debauch frequently precipitates an acute attack of pellagra, and many cases develop with chronic gastro-intestinal diseases when the prescribed diet is too restricted. The following case report is illustrative:

Mr. J. L. W., age 40, had the habit of an occasional alcoholic spree; one preceded the onset of his illness. The recovery from the spree was slow; his physician decided that he had a gastric ulcer and prescribed a very rigid diet. The patient followed the instructions carefully for about six weeks or more, when he began to show skin lesions and mental disturbances. The skin lesions were pellagra-like, beginning on the backs of the hands and extending to the elbows. There was a rough pigmented area around the neck and a rash on the dorsal surfaces of the feet. The mouth was sore, especially at the angles; the tongue was reddened and sore. The rash on the back of the hand became sore and ulcerated, requiring bandages to protect the clothing. The patient developed diarrhoea with loss of sphincter control. The knee jerks were hyper-active, the gait was spastic and staggering. The treatment was dietary, generous amounts of milk, eggs, meat and fresh vegetables were given. The skin lesions cleared up, the gastro-intestinal symptoms were relieved, and the mental state returned to practically normal, the sphincter control returned; the gait remained spastic, however. I saw the patient six months ago; his condition was fair. Two probable factors should be considered in this case, first the role of alcohol, second the rigid ulcer diet.

The most logical treatment of any disease is prevention. This is especially true of pellagra. Our greatest service in the treatment of pellagra is educational. The diet of corn meal, salt meat, and syrup is deficient in the pellagra preventative vitamin and is the

usual diet of the poorer classes of our population. In these homes a shortage of the more desirable foods, as milk, vegetables and fresh meat is noted. A wise dietitian has stated that a symbiosis exists between vitamins. This idea gives the key to the treatment of pellagra. The diet of the pellagrin should be generous in quantity, variety, and quality; eggs (especially the yolks), fresh lean meat, fresh milk, generous supply of fresh vegetables and fruits. This diet summarizes both the prevention and the treatment. Goldberger discovered that brewer's yeast was very rich in the pellagra preventative vitamin and was a valuable addition to the diet. One to two ounces is given daily.

The medicines that are useful are tincture of nux vomica as a stomachic tonic; for diarrhoea, bismuth with tincture of opium deodorized is valuable. Hydrochloric acid is useful; pellagrins, as recorded by Mayo clinic research, show that hydrochloric acid is absent in 75 per cent of the cases. For the skin lesions, calamine lotion gives a measure of relief.

The education against pellagra should include a campaign for one or two good milch cows, a good garden and a goodly supply of chickens and eggs the year around. In passing, I might mention that a physician does see pellagra in the wealthy and intelligent, who become food fadists and voluntarily restrict their diet. Among my patients with pellagra I have two cases of acrodynia, one occurring in an intelligent and cultured woman. When the propaganda against pellagra is thoroughly "put over" and the relation of diet to health is understood, the treatment and prevention of pellagra will be solved; an accomplishment that will be a real lasting service to our people, and especially those who reside in rural districts.

MARGARET FOULGER, ALFRED M. GLAZER and LEE FOSHAY, Cincinnati (*Journal A. M. A.*, March 19, 1932), report a case of tularemia in which: (a) auto-inoculation of two fingers of the left hand by contact with the primary lesion on the index finger seems to be highly probable; (b) the use of convalescent serum was without beneficial effects; (c) lesions of the peritoneum, both focal and diffuse, are described for the first time, and (d) a new staining method revealed the presence of *Bacterium tularense* in tissue sections from certain of the involved organs.

NARCOLEPSY

Report of Case With Symptomatic Relief

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Augusta

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Macon

Narcolepsy is a symptom complex which is characterized by two features, a tendency to go to sleep at frequent intervals, and a feeling of generalized weakness at the manifestation of any emotion, such as laughing, crying, etc. Weech¹ in his description of this syndrome refers to the latter feature as emotional asthenia, and emphasizes the desirability of not arriving at a diagnosis of true narcolepsy without its presence. This feeling of weakness may be so extreme as to cause the patient's knees to give way under him. The tendency to sleep may appear at most inopportune times such as while driving an automobile, playing cards, etc. Spiller² described a patient, a fireman on a locomotive, who went to sleep while holding on to the grabirons of a locomotive said to be moving at the rate of seventy miles per hour. Weech, in reviewing the literature, cites several other equally dramatic attacks. Those interested in the history of this disease are referred to his excellent report. It will suffice here to say that it was described first by Westphal³ in 1877, and was named by Gelineau⁴ in 1880.

The etiology of narcolepsy has never been determined definitely, and many theories have been advanced in attempts to explain it. There have been several case reports with improvement under thyroid extract, and this led to the belief that deficiency in this gland contributed towards the incidence of this syndrome. According to Spiller, the condition occasionally follows encephalitis. There has been some mention of inflammatory lesions in a supposed "sleep center" on the posterior wall of the third ventricle, as possibly causing this condition. It occurs more frequently about the time of puberty or adult life. Redlich⁵, in a review of thirty-five cases, discovered that symptoms appeared between the ages of 10 and 20 years in twenty-

two; between 20 and 30 years in three; between 30 and 40 in seven, and in one case the onset was uncertain. The case described by Weech was in a child of seven. Twenty-eight of Redlich's thirty-five cases occurred in males.

Regarding treatment of this condition, Doyle and Daniels⁶, in a recent publication, made a survey of all the various measures used in the past, and reported very gratifying results from the use of ephedrine sulphate in six cases. Chen and Schmidt⁷ had reported previously that this drug frequently produced sleeplessness. Doyle and Daniels⁸, in a later communication, acknowledged previous reports of the use of ephedrine in these cases by Janota and Skala in their discussion of a paper by Pelnar before the Prague Neurologic Society in June, 1930. Before this report thyroid extract had been used in many cases, and, as will be seen, had been used without effect in the case to be described.

Report of Case

Mrs. A., aged 42, was first seen by me on Aug. 18, 1930, after having received the correct diagnosis from her physician, Dr. T. E. Rogers, of Macon.

Present Illness.—In 1926 she noticed that she felt sleepy very frequently during the day. This progressed until on one occasion she fell asleep while driving her automobile. These attacks of paroxysmal hypersomnia, as they have been termed by Froderberg⁹, became so frequent that the patient found herself almost incapacitated, and she had great difficulty in caring for her two children. She stated that hearty laughing made her feel as though her knees would collapse, and that her head would be jerked backwards. She noticed a gradual increase of weight from an average of 135 to 165 pounds. In 1929, her basal metabolic rate was minus 26 and her physician gave her thyroid extract. This was given in dosage of gr. 5 each day at first, and gradually increased to gr. 15 daily with no relief. She came to Augusta in July, 1930, for a consultation, at which time she had become more or less reconciled to her condition and would excuse herself and sleep whenever she felt the urge. Her sleep at night was normal. She was aroused easily from the attacks.

Past History.—Previous to the onset of this illness the patient had enjoyed exceptionally good health. However, about two years before the onset she was in bed for about one week with "very high fever". This was interpreted at that time as la grippe. It is possible that this illness was a mild, abortive, influenzal attack of encephalitis lethargica. She had two normal children, ages 8 and 10 years, and had had no miscarriages.

Physical Examination.—Wt., 152; pulse, 80. The only positive observations were moderate obesity, slight pallor of the skin, adontia, a peculiar puffiness about the ankles and increased deep reflexes. Hair was normal in distribution and amount. Urinalysis was negative and Wassermann, Kahn and Hinton tests were negative.

Treatment and Course.—Thyroid extract was ordered again in dosage of gr. 5 supplemented with anterior lobe of pituitary gr. 5 daily. Parathormone units 20 subcutaneously was given for ten days. In May, 1931, I communicated with Dr. Rogers and mentioned the use of ephedrine in these cases after reading the article by Doyle and Daniels. At about this time he started her on ephedrine sulphate gr. 3/4 after breakfast and lunch, and gr. 3/8 at about five P. M. Dr. Rogers was kind enough to furnish me with a complete follow up report, in which he stated that this patient was free of all her previous symptoms. Relief of symptoms occurred immediately with administration of this drug. It is with Dr. Rogers' permission that I am making this report. He tells me that she has had to discontinue the evening dose for usual daily activity because it interfered with her night sleep. I received a letter a few days ago from the patient herself, and she stated that she doubles the dosage of ephedrine whenever she plans to do anything that would require unusual attention, and that she had no difficulty whatever in driving her car on a trip of nearly 300 miles through the North Carolina mountains. She stated that she had lost twenty-five pounds in weight during the past summer and was now enjoying a normal life.

Summary

A case of true narcolepsy which appeared in a woman of 38 years is reported.

The two characteristic symptoms, frequent attacks of sleep and emotional asthenia were present.

The basal metabolic rate was decidedly below normal and there was a definite gain in weight before treatment. Thyroid extract in moderately large doses produced no relief.

With the ingestion of ephedrine sulphate there has been relief from all the characteristic symptoms and a return to normal activity.

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SPONTANEOUS PNEUMOTHORAX*

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My subject sounds somewhat technical and as though it would appeal only to pulmonary clinicians. This should not be so, however, since it deals with a condition which is not uncommon and one likely to be encountered by any doctor doing general medical work. Its prompt recognition and treatment, particularly in urgent cases, has an importance comparable to that in other emergencies such as acute appendicitis or renal colic.

In this presentation I am considering that group of cases where air enters the pleural cavity from rupture within the thorax, and leaving out of consideration those cases where it is produced by penetrating wounds and other chest injuries; and also where it is introduced for therapeutic collapse, or what is known as artificial pneumothorax. It is by virtue of this last mentioned procedure that most of our present knowledge of pneumothorax has been obtained, particularly with reference to intra-pleural pressures and physical signs. The condition has been known since early times, however, and the name, pneumothorax, given it by a French physician at the beginning of the 19th century. One of the best clinical descriptions we have was given us by Laennec some few years later. Forlanini near this time discovered its salutary effect upon an advanced case of pulmonary tuberculosis, and this paved the way to the development of therapeutic pneumothorax.

By far the greatest number of instances of pneumothorax occurs in individuals suffering from pulmonary tuberculosis, statistics of several series of cases giving the figure from 75 to 90 per cent. Some other conditions which may give rise to it are: lung abscess, gangrene, bronchiectasis, empyema, new growth, interstitial emphysema, and pneumonia. In rare instances the access of gas forming organisms to the pleural cavity has been thought responsible. Not infrequently it is seen in apparently normal and healthy individuals and the condition spoken

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of as idiopathic pneumothorax. The most plausible explanation in these cases, and in some instances it has been proved, is the rupture of a superficial emphysematous bleb. In quite a few of these individuals, however, there is a positive family history of tuberculosis or there develop signs of pulmonary disease months or years after the accident. The condition is relatively uncommon in childhood, shows its greatest frequency in the age group of 20 to 40, occurs three to four times more often in men than women and on the left side more than the right. Some individuals are subject to recurring attacks, or have what may be termed a pneumothorax diathesis. Edwin Locke reports a case who had eighteen attacks in the course of seven years. A few cases of double or bilateral pneumothorax have been reported, such a condition being, of course incompatible with life.

There are a number of theories regarding the actual rupture. The most commonly accepted ones are: ulceration of a sub-pleural tubercle, tearing of a small rent in the visceral pleura by an adhesion or tag attached to the chest wall, rupture of an emphysematous bleb and the rupture into the pleural cavity of an abscess cavity. In those cases where the accident follows a sudden and perhaps severe strain or effort such as hard coughing, a severe jolt, cranking a car, etc., a ruptured bleb or the pull by an adhesion is the offending mechanism. In performing artificial pneumothorax, the accident occasionally happens. This is not always due to penetrating the lung with the needle, but may be caused by tension placed upon a caseous lung. It may come on immediately, but often after several hours, the latter experience has usually been mine. The presence of the spontaneous pneumothorax superimposed is determined by the appearance of a more or less alarming group of symptoms, notably dyspnoea, pain and cyanosis; by the physical signs of a much larger pneumothorax cavity than you anticipated securing (but this may be uncertain) by radiographic control where available and by finding on the next instillation your initial pressure reading to be greater than your final reading at the preceding one. I recall three patients where this

occurrence enable me to secure a better collapse than I could have otherwise because of adhesions.

Pneumothoraces have been divided into open, closed, and valvular, depending on the nature of the perforation into the pleural cavity. Recent study of the mechanism of pneumothorax tends to consider most of them as more or less valvular in the beginning, air entering on inspiration with less difficulty than it is expelled on expiration. It will continue to enter a patent opening so long as the intra-pleural pressure is negative and after becoming positive aids in closing the opening; and then the edges, if they approximate, may heal. This explains why in many cases aspiration of air is promptly followed by a return of distressing symptoms since the negative pressure produced re-opens the perforation. This fact also is the basis for treating some of these cases by injecting more air. In addition to the size and nature of the opening, another prominent factor influencing the character and course of a pneumothorax is the matter of adhesions. In their absence, the pneumothorax is complete and the lung lies in the vertebral gutter like a sausage. Where adhesions are present, the pneumothorax is partial or localized, and to an extent depending on the size, location, and number of them. The more numerous and stronger the adhesions, the smaller the resulting pneumothorax, and attended by less violent symptoms. A patient may present himself, complaining perhaps of only slight breathlessness and examination disclose a complete pneumothorax. This is called the latent type. All the symptoms of a severe pneumothorax accident may occur and no air be demonstrable until after a few days. This has been called the mute form. The double form has been referred to above.

The symptoms in spontaneous lung rupture are extremely variable, depending on many factors, particularly the mechanical ones such as adhesions, rigidity of mediastinum, size of opening, etc. There may be very few, as in the latent form, or the picture may be one of extreme distress and shock. The patient is usually sitting up (when lying is usually on the good side), facial expression anxious or agonizing, and bathed in

a clammy perspiration, extreme dyspnoea and tachypnoea (40-50 perspirations per minute), cyanosis may be marked, pulse rapid and feeble, extremities cold. He may be inarticulate and dare not move or cough because of the pain which is usually severe. Temperature is often elevated to 102 or more, later subnormal. The pain often changes after several hours or more from the sharp, cutting, burning, or tearing type to a heavy pressure. When the attack is on the left side and with pain down this arm, the picture strongly resembles angina pectoris. In other instances an asthmatic seizure or renal colic is suggested.

The physical signs are usually very striking. The affected side in complete collapse cases is immobile, the interspaces are obliterated, heart and mediastinum pushed over, liver pushed downward and the liver dullness may be obliterated. The whole hemithorax appears more voluminous. The percussion note is usually hyperresonant or frankly tympanitic, a dull tympany being the most frequent percussion note I have encountered. The percussion note and breath sounds vary according to the size of the pneumothorax, the tension of the contained air and the size of the perforation. Amphoric breath sounds, metallic sounds of all kinds and exquisite tinkling may be heard. At times there is a complete silence, and this would be expected in total lung collapse. However, there may be total lung collapse and audible breath sounds. The coin sound is usually present, very significant, and easily elicited. In the majority of cases spontaneous pneumothorax is followed in a few days or few weeks by the formation of an exudate. When present, a pathognomonic sign is readily obtained and this is the Hippocratic succussion splash. Shifting dullness due to fluid and air may be similarly classified. The fluid is usually serous at first, but becomes purulent often when the opening into the pleural cavity persists. In some cases it is purulent from the beginning. With an exudate present, the condition becomes a hydro or pyo-pneumothorax.

Pneumothorax at times has to be differentiated from diaphragmatic hernia (traumatic) unilateral emphysema with the op-

posite lung the seat of a fibrosis, a large subphrenic abscess. Its resemblance to other conditions, such as asthma, angina pectoris, etc., has been commented upon, but differentiation is usually simple. A localized pneumothorax may strongly resemble a cavity. Time does not permit my going into the differential features, and in some cases a differentiation by any method is impossible. Most localized pneumothoraces occur above the third rib. They have been given as one of the explanations for annular shadows.

Treatment consists chiefly in supporting the heart and circulation by the usual methods. The pain calls for relief, usually hypodermic of an opiate. Tremendous relief is immediately obtained by tapping the chest and letting the air bubble out under water. Suction is seldom required and may be dangerous by opening the closed perforation. Making pleural readings with a pneumothorax apparatus has shown that the pressure in most instances is not raised much, if any, above normal. Injecting more air is being done frequently now in treating these cases and the results have been gratifying. For the immediate distress, however, the most helpful measure is tapping the chest, and this may have to be repeated several times within twelve hours. Putting in a permanent cannula encourages infection, which is extremely dangerous. The air obtained in some of the cases with a purulent exudate, may be very foul. The exudate in pneumothorax is usually best left alone unless it produces respiratory embarrassment. Then it calls for surgery.

The prognosis in spontaneous pneumothorax is frequently grave, particularly where it complicates pulmonary tuberculosis. About three per cent of deaths in tuberculosis is due to this cause. Where death does not occur, the pulmonary lesions are aggravated and death often follows in a few months. Death may result from suffocation or heart failure in a few to several hours. If the patient survives the first few days, they usually recover from the attack. The prognosis in the apparently healthy individuals is usually good. The collapsed lung usually expands in anywhere from two weeks to a few months. I shall conclude this paper with the happy

thought by again calling to attention the provident pneumothorax that sometimes occurs in advanced tuberculosis and by collapsing the diseased lung vastly improves the patient. When this occurs, the collapse should be maintained by the method of artificial pneumothorax.

THE DIAGNOSIS AND TREATMENT OF COMMON SKIN DISEASES*

Special Reference to Pre-Cancerous Lesions

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Dermatology is an important field of general medicine which deserves more serious attention from the average practitioner. Statistical analysis of approximately one million cases compiled from the records of several skin clinics for the past fifty years shows a wide variety of diagnosis, about two hundred and fifty in all. Nevertheless, over sixty per cent of the total are included in a very short list consisting of eczema, lues, acne, scabies, psoriasis, seborrhea, impetigo, urticaria, dermatitis venenata, tinea, alopecia, pediculosis, pruritus, verruca, the occupational and drug dermatoses. These lesions are all so definite that the problem of diagnosis appears to be of less import than that of treatment. The same may be said of a large number of skin affections and contiguous mucous membranes. The management of dermatological conditions requires not only an accurate diagnosis, but also intelligent conception of the fundamental biogenetics involved.

These common affections of the skin and contiguous mucous membranes may be grouped into (1) those entirely local, (2) those primarily metabolic, and (3) those in which both local and systemic factors are involved. In the first group are the local infections, parasitic infections, and neoplasms. In the second group are the toxic, and metabolic, or allergic dermatoses. In the third group are such lesions as acne, lues, tuberculides, and others in which both the systemic and local factor must be considered.

Principles of treatment demand efficient bactericidal or parasiticidal agencies, or again destructive ablation in the first group; correction of the underlying constitutional dyscrasias, usually allergic, in the second group; and a combination of various therapeutic measures in the third group. Pharmaceutical agents, sera, vaccines, ointments, lotions, and other medicinal preparations are of value in a wide variety of skin lesions. The most benefited are the local parasitic or pyogenic affections, such as scabies, pediculosis, impetigo, and erysipelas. In the latter incandescent light baths, prolonged but kept within the patient's tolerance by intermittent rest periods, are of definite value. The air-cooled quartz lamp may also be advantageously employed. A severe blistering erythema should be obtained in the marginal zone, and just beyond, thus walling off and localizing the infection. The specific serum should, of course, be utilized whenever available. Lues has its specific medicinal treatment. Nevertheless, in some forms of cutaneous gumma and condyloma electrocoagulation is curative when the usual arsenicals and mercurial iodide regimen has failed.

Dermatologists for many years, and more recently surgeons, have recognized the importance of the very close relation of the more common cutaneous lesions with malignancy. If the ravages of cancer are to be further reduced much yet remains to be accomplished. It is hoped that the utmost efforts of the profession will be exerted, through their clientele, to a full realization of the importance of early recognition of danger in lesions which do not heal in a reasonable time and with ordinary remedies.

While the etiology of cancer of the skin is still subjudice we do know that malignancy develops upon keratoses (too often considered harmless) which have been subjected to external irritants. It is a well known fact that riotous proliferation of cellular structures may be caused by irritation. It is also a patent fact that the most malignant of all tumors arise from the skin. Therefore, if lesions which are prone to malignant transition are early recognized and properly treated disaster will often be averted. The num-

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ber of benign lesions appearing as a fertile field for malignancy is quite extensive and worthy of intelligent consideration.

In this age when mechano-therapy, auto suggestion and psychopathic deductions are rife, the public through confusion becomes an easy prey for the quack, and especially in this field, since there are offered unparalleled opportunities for their nefarious practices.

It has been recognized for years that the most virulent form of malignancies arises from the common, flat, darkly pigmented moles, whether they are congenital or acquired. Bloodgood and Keene have both shown the virulence of their origin in the naevi, which vary as to the type of cells, some coming from the endothelium while others are thought to be of mesoblastic origin. Those lesions arising from the epithelial processes are carcinomata. The commonest, and, therefore, the most important are those derived from the soft naevi which are endotheliomata of lymph vessel origin. The areas of predilection are the face, arms, body, soles of the feet and some times under the nails of the fingers where they rise to the so-called melanotic whitlows. Metastases involve the skin, viscera and lymph glands and are apt to occur early in the malignant change. The lesions arising from these pigmented moles are nevocarcinomata, melanocarcinomata and melano-sarcomata.

These lesions, also called senile warts, and seborrheic naevi, are very common on the temples, sides of the face, the midline and especially the nose, on the back, shoulders and hands of elderly persons. They develop slowly, appearing first as a small, yellowish, somewhat scaly patch, varying in diameter from 2 to 20 mm. Later they are covered by a hard, thick, dark, closely adherent crust. There are three types: (1) The keratoid, usually small and covered with a hard, dark crust. (2) The verrucose shows a thin, yellowish crust which when removed exhibits a warty surface beneath. None of these lesions disappear spontaneously. It has been estimated that approximately ten per cent of these lesions become malignant. When degeneration takes place the lesions on the face and shoulders show a large majority of

basal-celled epitheliomata, while those below the angle of the mouth usually are prickle-celled carcinomata.

Solitary patches of simple keratosis may develop very often in elderly people. They begin as appules from 1 to 3 mm. in diameter and possess a dense, horny consistency. The crust, which is very adherent, and blackish in color, becomes detached but once or twice a year. Ordinarily they are single, but occasionally they are multiple. It is unusual to find more than three or four such lesions on a person. The areas involved are usually the face and back of the hands. Those malignancies occurring on the face are basal-celled while those on the hands are prickle-celled invariably.

Paget's disease was first described by Paget in 1874 in St. Bartholomew's Hospital Reports and was thought to be peculiar to the nipple, but almost as many extra-mammary lesions have been recognized and studied. The disease usually begins as a peculiar raw, granulating, weeping eczematous patch, subject to many clinical variations. If on the breast, it occurs after middle life and surrounds the nipple. Later cancerous changes are noted and the usual fatal termination ensues. Occasionally cancerous processes seem to antedate the Paget lesions, but when present they are all regarded as precancerous. The condition is found on the breast, penis, and other parts of the body. The cancers are of the prickle-celled variety.

While the great majority of warts are benign and do not tend to malignant change, there are two well known varieties which are so inclined, namely, the basal-celled and the prickle-celled. Microscopical differentiation of a malignant wart from one of benign tendency is determined by the basal induration and persistent surface ulceration. These malignant warts are not so virulent as many other neoplasms arising from the skin and thus show a slower growth, less tendency to metastasis and consequently offer pleasing results in early removal. They may occur at any age. The sites of predilection are the lips, face, tongue, penis, and less frequently the body at large. Because of the unsightly appearance (especially on the face) inconven-

ience, and morbid fear of patients who are the unfortunate possessors of such lesions the quack finds a lucrative field for his exploitation. One such case, a man 27 years of age, came under observation, with a malignant wart on the lower lip; it had been cauterized with acids and became very active, grew rapidly and showed markedly indurated base and edges. He was advised to consult a surgeon for relief, but instead sought a paste specialist, with the result that he succeeded in parting with his wart, and with it the major portion of the lower aspect of his face. A simple V-shaped incision was all that was required to give complete results.

The methods of treatment for these lesions are as numerous as the lesions themselves. Whether surgery, radio-therapy, surgical diathermy or endothermy, caustics, fulguration, electrolysis, carbon dioxide snow, or paste is used will depend upon the choice of the clinician and results will be reflected by his skill and judgment. Bechet states that "in the majority of instances vesiculobullous diseases do better with drying lotions than salves. Certainly salves in herpes zoster hasten the rupture of the bullae, thereby increasing the pain, and the tendency to scars. The dry lichenified eczemas are best treated with stimulating ointments; lotions would only prove more drying, and less penetrating where penetration is desirable.

"The most common disease of the scalp is serborrhea. Euresol, resorcin, or chloral hydrate in five to six per cent solutions in alcohol, water, and glycerin; salicylic acid, ammoniated mercury, or sulphur in five to ten per cent ointments, are still favorites, with oil of cade or tar in green soap as a shampoo, once or twice a week. Resorcin must never be used in patients with very grey or white hair as it changes the color to a drab yellow or green shade.

In acne vulgaris, comedones must be expressed, pustules opened, and astringent lotions used. Diet is of considerable importance. Raw fruits, sweets, pastries, fried food, milk, and condiments, are looked upon askance. Vaccines have proved of little if any value. Soaps and greasy applications are disliked. Calcium, either by mouth or in-

travenously, seems to be of occasional benefit. The roentgen rays are practically specific. The flat warts of childhood can be exfoliated with strong salicylic alcoholized solutions, or salicylic and sulphur salves, with either arsenic or mercury. The simple impetigos are benefited most by ammoniated mercury. Vesiculobullous, moist, or oozing eczemas are best treated with wet dressings of boric acid, or weak aluminum acetate solutions, or such astringents, antipruritic lotions as calamine and zinc, or magnesia and zinc; occasionally olive oil may be added to the calamine and zinc lotion, if it is deemed too drying.

Psoriasis is so varied in its manifestations, and the treatment differs so much in its various stages, that it would require an exhaustive and exhausting paper in itself in order to describe at length the various therapeutic suggestions; suffice it to say, that there is as yet no specific treatment for this disease. Arsenic in the form of Fowler's solution, sodium arsenate, and sodium cacodylate, are still popular. In extensive eruptions, in plethoric individuals, an animal free diet is of great service. Locally, in the order of their importance, are: chrysarobin, ammoniated mercury, the tars, salicylic acid, and sulphur. Care must be taken in every extensive case not to set up a severe dermatitis which occasionally runs on into an exfoliative dermatitis, thereby totally incapacitating the patient. Chrysarobin should never be used on the face or scalp because of the unsightly staining. Schamberg has brought forward a derivative of chrysarobin under the name of novorobin, which is a much more cleanly preparation.

Furunculosis is best treated by vaccines, autogenous or stock and supportive medication. Many doctors never incise boils, unless it is to free pus already formed. They much prefer cataplastic applications. If that is ever of any use it is in this malady. Prophylactic cleanliness does much in preventing its spread. Acute urticaria is quickly relieved with adrenalin, calcium, and free purgation. Chronic urticaria, angioneurotic edema, and dermatographism are the bane of a dermatologist's existence. The correct diag-

nosis and treatment of scabies should be emphasized. Interdigital lesions, elbow, wrist, axillary, umbilical, and genital lesions caused by the burrow of the female itch mite and causing nocturnal itching with multiple infection in families, dormitories, and schools should be sufficient for diagnosis. The thorough treatment with ten to fifteen per cent sulphur, with three to six per cent balsam of Peru in an absorbable ointment base for two or three nights should be sufficient treatment. The proper disinfection of all personal clothing and bed linen, of course, is necessary. Second only to scabies probably in the number of patients consulting a dermatologist are those suffering with ring worm infection. The so called toe itch, golf itch, athlete's foot and Dhobie itch are caused by fungus or ring worm infection. Characteristic lesions are erythematous, vesicular, macerated, accompanied often by secondary pyogenic infection, and accompanied with more or less intolerable itching is characteristic of this infection. Whitfield's ointment, with thymol or sulphur will usually effect a cure. The prophylaxis of ring worm of the feet has been brought to the front recently, especially in the treatment of high school children. Gould, of Albany, N. Y., practically eliminated this infection in a high school by the use of a ten to fifteen per cent sodium thiosulphate solution. This was used by the students in walking from the showers to the locker rooms. A little later Osborne, of Buffalo, N. Y., devised the use of two per cent sodium hypochlorite solution for students to walk through on their way from the showers to the locker rooms and either of these methods of treatment appears to be indicated where group or mass athletics are used.

The occupational dermatoses of launderers, dish washers, soda fountain employees, painters, and those handling dye goods and stains is well known, likewise the dermatitis medicamentosa of the bromides, luminal, and allied drugs is also well known. The distressing condition often produced by quinine, atrophine, phenolphthalein can usually be definitely determined if the history is correctly obtained and, of course, the condition is relieved by withdrawal of the drugs. In

dermatitis venenata due to the rhus toxicodendron, the use of the Strickler rhus toxin by intramuscular injection has been favorably reported by some and unfavorably by others. Its value is problematical. It causes pain, at times, lasting several days, and in one instance was noted a new outbreak of the disease at the point of injection. Locally the calamine and zinc lotion with olive oil is an ideal dressing. For immunizing purposes the use of the following prescription as recommended by Schamberg is exceedingly useful: Tincture rhus toxicodendris, grains 15; alcohol, drams 1; syrup aurantii cortici to make, 3 ounces. The dosage begins with one drop three times a day, which is increased by one drop at each dose until twenty-one drops are taken. Thereafter, one teaspoonful is administered daily throughout the ivy season. With this method it has been possible to keep some susceptible individuals free from attacks throughout the season.

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PATHOGENESIS OF CHRONIC HEREDITARY EDEMA OF EXTREMITIES (MILROY'S DISEASE)

JOHNSON MCGUIRE and PEARL ZEEK, Cincinnati (*Journal A. M. A.*, March 12, 1932), have studied a characteristic case of hereditary edema of the extremities for several years. They describe the pathologic alteration in the skin for the first time. Microscopic examination revealed a normal epidermis, directly beneath which there appeared to be a condensation of the superficial portion of the dermal papillary layer. With Mallory's aniline blue stain this portion of the dermis had a membranous appearance and was composed of fine collagen fibrils, which in some areas were undergoing hyalinization. No elastic tissue was found in this layer, and there seemed to be fewer capillaries than normal extending into the papillae. In the reticular layer, the heavy collagen fibers were somewhat spread apart by edematous fluid, but the edema was not nearly so marked here as in the deeper parts. The small groups of blood and lymph vessels, especially those of the subpapillary network, were surrounded by a considerable sprinkling of lymphocytes, which seemed to be more definitely related to capillaries and venules than to arterioles or larger vessels.

THE JOURNAL

OF THE
MEDICAL ASSOCIATION OF GEORGIA
Devoted to Welfare of Medical Association of Georgia

139 Forrest Ave., N. E., Atlanta, Ga.

APRIL, 1932

INVITATION

From May 17th to 20th, the Eighty-Third Annual Session of the Medical Association of Georgia will be held in Savannah. As President of Georgia's oldest Medical Society, it gives me great pleasure to extend to all members and their wives a cordial and urgent invitation to be our guests on that occasion. It is needless to refer to the natural beauty of Savannah and her environs, or to her historical pre-eminence; for these are not of our doing, and not for our boasting. We want you to come so that we may be better friends and better physicians.

In the words of the "Inscription for a Friend's House":

"The lintel low enough to keep out pomp and pride;

The threshold high enough to turn deceit aside;

The doorband strong enough from robbers to defend;

This door will open at a touch to welcome every friend."

We bid you thrice welcome.

Faternally,

WILLIAM A. COLE, M.D.,

President of the Georgia Medical Society.

The program for the Eighty-Third Annual Session of the Association is published in this *Journal*. It contains a Symposium on Sinus Disease, Symposium on Psychoneuroses; papers on pediatrics, general medicine and surgery.

Dr. Dean Lewis, Baltimore, will deliver the Calhoun Lecture on "Clinical Manifestations of Malignant Disease."

Dr. William Mithoefer, Cincinnati, will speak on "The Relation of the Diseases of the Nasal Accessory Sinuses to Systematic Derangements."

Dr. Walter C. Alvarez, Rochester, will deliver an address on "Practical Points in the Care of Patients With Indigestion."

The House of Delegates will meet on Tuesday afternoon, May 17th, at 2:30 P. M. in the Men's Parlor of Hotel DeSoto.

KOCH SEMI-CENTENNIAL

This year, March 24th, marks the passing of fifty years since the announcement by Dr. Robert Koch, before a distinguished medical body in Berlin, of the discovery of the tubercle bacillus.

Koch's discovery was immediately recognized as one of the most important events in all medical history. That this announcement was accepted without question from the first (an unusual thing in medical and scientific circles) will be easily understood now by all those who read for the first time in the English translation just issued by the National Tuberculosis Association, in honor of the fiftieth anniversary of the event, his simple, logical description of his discovery, isolation and propagation of the germ and his proofs that it is the sole and only cause of tuberculosis, the greatest scourge of the human race.

Plans are under way throughout the country for the proper observance of the Koch semi-centennial anniversary. In Georgia the Atlanta Tuberculosis Association took the lead by featuring in its recent annual meeting the importance of Koch in the local tuber-

The JOURNAL would like to record the scientific work of Georgia doctors. It earnestly requests, therefore, that each physician in the State who publishes a contribution in some other medical periodical submit an abstract of the article for these columns.

culosis program, and Savannah and other tuberculosis associations have announced similar celebrations while representatives of the Georgia Tuberculosis Association, State Department of Public Health, Medical Association of Georgia and the Georgia Sanatorium Association, meeting in Atlanta on the 18th, formulated a program for a more general observance of the anniversary throughout the State.

Koch in medical and scientific circles has a place as secure as Washington in statesmanship, and it is significant that the bicentennial celebration of the birth of Washington in which we feature his gift to us of political freedom should coincide with the semi-centennial celebration of Koch's discovery, which is not only freeing the race from tuberculosis but established the scientific technique by which the bonds of many other diseases are being broken.

ARTHUR G. FORT, M.D.

AVERAGE INCOME AND DISBURSEMENTS OF THE ASSOCIATION

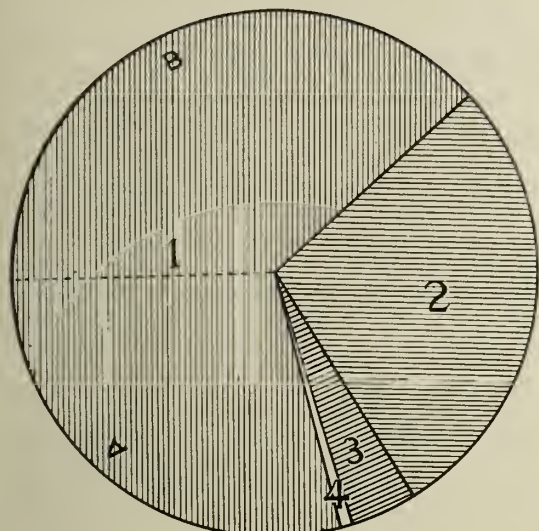


Figure 1

AVERAGE INCOME OF THE ASSOCIATION

The income of the Association, from all sources, is as follows: (See Figure 1.)

1. Dues—67.22 per cent.
 - (a) Dues for general expenses—38.41 per cent.
 - (b) Dues allotted as subscriptions to the Journal—28.81 per cent.
2. Advertising—28.16 per cent.
3. Commercial exhibits during annual sessions—4.46 per cent.
4. Miscellaneous subscriptions—0.16 per cent.

ANNUAL DUES OF SOME OTHER STATE ASSOCIATIONS

Arizona	\$12.50
California	10.00
Colorado	10.00
District of Columbia	20.00
Florida	10.00
Idaho	20.00
Maine	10.00
Maryland	18.00
Massachusetts	10.00
Michigan	10.00
Minnesota	15.00
Nevada	10.00
New Jersey	15.00
New Mexico	10.00
New York	10.00
Oregon	20.00
Rhode Island	10.00
South Dakota	10.00
Texas	10.00
Vermont	10.00
West Virginia	10.00
Wisconsin	15.00
Wyoming	10.00

A. M. A. B.

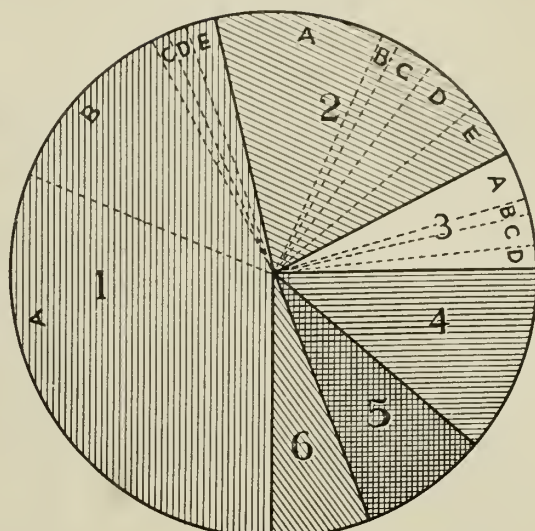


Figure 2

AVERAGE DISBURSEMENTS OF THE ASSOCIATION

The disbursements of the Association for all purposes is as follows: (See Figure 2.)

1. Journal—46.59 per cent.
 - (a) Printing and mailing—30.21 per cent.
 - (b) Salaries—12.11 per cent.
 - (c) Postage—1.39 per cent.
 - (d) Rent—0.80 per cent.
 - (e) Engraving, stationery and reprints—2.08 per cent.
2. Committees, Council and delegates to A. M. A.—20.48 per cent.
 - (a) Medical Defense—10.13 per cent.
 - (b) Council—1.03 per cent.
 - (c) Public Policy and Legislation—2.03 per cent.
 - (d) Presidents—3.56 per cent.
 - (e) Delegates to A. M. A.—3.73 per cent.
3. Annual session—7.09 per cent.
 - (a) Reporting—2.91 per cent.
 - (b) Invited guests—0.98 per cent.
 - (c) Scientific and commercial exhibits—1.86 per cent.
 - (d) All other expenses—1.34 per cent.
4. Salaries—12.11 per cent.
5. All other expenses—7.43 per cent.
6. Reserve—6.31 per cent.

The American Medical Association will hold its eighty-third annual session at New Orleans, May 9th to 13th, inclusive.

Special cars with reduced rates will be run from Atlanta to New Orleans.

The Tennessee State Medical Association will hold its ninety-ninth annual session at Memphis, April 12, 13, 14.

THIRD ASSEMBLY OF THE SOUTH- EASTERN SURGICAL CONGRESS

The third Annual Assembly of the Southeastern Surgical Congress was held in Birmingham, March 6-8, of this year. Despite the financial depression, there were more visitors from a distance than at the Assembly in Atlanta last year. The South was more liberally represented on the program this year. During both sessions the Southern speakers maintained the Southern traditions of dignity and excellence. Every speaker was present during the Atlanta session, with only one absent at the Birmingham session: Dr. Hubert A. Royster, of Raleigh, who was kept from coming at the last moment by illness in his family.

During the Atlanta session there was some interruption in the program due to shifting places of speakers on account of the train schedules of some of the distinguished guests from the North. In Birmingham every man appeared at his scheduled time. Last year Doctor Coffey was forced to take a small mail plane from Houston to Atlanta to arrive on time. This year Doctor Babcock had to abandon his train on account of a breakdown and fly to Birmingham to appear at his appointed time; he arrived in the hotel fifteen minutes before he was called by President Roberts. During both Assemblies practically all the guest speakers remained in attendance to hear the other speakers,—an incident which characterized both sessions as unusual. Comments indicate that these were the most instructive and valuable surgical sessions ever held in the South.

At the business meeting, the following officers were elected: President, Dr. Frank K. Boland, Atlanta; President-Elect, Dr. Willis C. Campbell, Memphis; Vice-President, Dr. Gilbert F. Douglas, Birmingham; Director General, Dr. B. T. Beasley, Atlanta.

The greater part of the meeting, however, was devoted to a discussion of some publication for the Congress. The moral obligation to itself and to its guest speakers to publish the papers read before it was recognized and some form of publication was therefore necessary. It was decided moreover, that a distinctively Southern surgical journal would add to the prestige of Southern surgery and inspire the young men to write. The meeting referred the question to the Executive Committee of the Congress with power to act.

NOTE—*The Southern Surgeon*, a handsome quarterly, will make its appearance in April.

DOCTOR "GOOD HEALTH"

Recently, while listening over my radio, I happened to catch a program where Dr. "Good Health," of Texas, was giving an address to the laity on many misunderstood points in medicine and surgery. The doctor was acting under the auspices of his county society and the State Medical Association of Texas, and the name—Dr. "Good Health"—was used instead of the real name of the speaker in order to prevent the very appearance of advertising, which is a violation of ethics of the medical association in every state of the union.

I was very highly impressed with the address. In fifteen minutes the doctor covered many points which are not generally understood by the rank and file of citizens of a commonwealth. A question box is maintained and every hearer is requested to send any questions on a medical subject, which he does not understand, and the same is answered at the next program. The questions are addressed to Dr. "Good Health," in care of the station where the talk is made. It was not possible to determine definitely whether Dr. "Good Health" gave the talks regularly or if different men handle the program each week. There are points in favor of either.

The main reason we do not get co-operation 100 per cent by the people of the state in matters of preventive medicine is simply because there is a lack of understanding. Because a man is a very brilliant lawyer, business man, or even a minister, is no reason why he should be accepted as a past-master in matters of public health. Some are informed and others are not. We have many physicians who are not as well informed on such matters as some others in the profession.

This was brought to the attention of the councilors at a recent meeting, and seemingly met with general approval. Fifteen minutes' use of the broadcasting station each week without pay has already been tendered those at the head of this movement. It is an opportunity for conducting a state-wide educational campaign on vital subjects of medicine, which are not understood by the public at large. How can we expect Georgia to rank high in public health administration when we are doing so little to educate the masses on the subject of health? Do you know that Georgia stands forty-fifth among the states of the union in the matter of health education? The "wise guy" who ordinarily knows the least about a subject often furnishes the information to the laity. That is true in the opinion some have of the doctor

and public health just like it is with others who know more law than the most brilliant genius of that profession. There are many who are grossly ignorant on the matter of the protection of the people against disease but are too ignorant to know they are ignorant.

Every fad has its day. This is the day for the radio. Every man who can possibly get up his down payment usually has a radio. This is our golden opportunity to do some effective health education work. We can have the whole state as an audience. Practically every business and profession is now using the radio and getting results. Is anything more important than educating the people about the prevention of disease, and telling them how to keep away from advertising quacks and the danger of worthless "cults"? If the doctors of Georgia are interested in such a radio educational campaign I would like to receive a postal *at once* upon reading this from every medical man in the state who favors it, so that we may take further steps about it at our forthcoming meeting in Savannah, May 17, 18, 19, 20, if the members think such an educational campaign of health is worth while.

Rome, Ga. M. M. McCORD, M. D.

NEW MEMBERS FOR 1932

Arteaga, Oliver, Atlanta.
 Baker, E. L. Jr., Atlanta.
 Bateman, N. B., Jr., Atlanta.
 Bowling, J. M., Atlanta.
 Boyd, Ben H., Atlanta.
 Chandler, B. B., Gainesville.
 Coile, W. R., Athens.
 Curtis, W. L. Sparks.
 Egbert, E. H., St. Simons Island.
 Evans, H. E. Perry.
 Fowler, A. H., Smyrna.
 Gostin, B. S., Macon.
 Greene, W. J., Ringgold.
 Harbin, W. P., Jr., Rome.
 Hodges, L. W., Gainesville.
 Howard, Jas. W., Atlanta.
 McBarnes, J., Emory University.
 Moran, O. F., Milledgeville.
 Neal, T. C., Dalton.
 Norris, Jack C., Atlanta.
 Patterson, Jas. W., Dawson.
 Phillips, H. K., Cleveland.
 Phinizy, Thos., Augusta.
 Purse, Ashby, St. Simons Island.
 Scruggs, S. A., Americus.
 Stewart, W. K., Macon.
 Threatte, Bruce, Columbus.
 Turner, W. W., Nashville.
 Upchurch, Wilborn E., Atlanta.
 Wood, Lloyd, Dalton.

HEALTH EDUCATION WEEK*

Counties and Chairmen

Dr. Arthur G. Fort, President of the Association, has appointed the following doctors as Chairmen for their respective counties for Health Education Week, April 24th to May 1st, inclusive:

Counties

Baker.....	C. W. Twitty, Elmodel
Baldwin.....	E. W. Allen, Milledgeville
Banks.....	Mat P. Deadwyler, Maysville
Barrow.....	W. T. Randolph, Winder
Bartow.....	R. E. Adair, Cartersville
Ben Hill.....	W. P. Coffee, Fitzgerald
Bibb.....	Benj. Bashinski, Macon
Bleckley.....	A. L. Smith, Cochran
Blue Ridge.....	J. M. Daves, Blue Ridge
Brooks.....	E. L. Jelks, Quitman
Bulloch.....	A. J. Mooney, Statesboro
Burke.....	R. L. Miller, Waynesboro
Butts.....	B. F. Akin, Jackson
Calhoun.....	C. K. Sharp, Arlington
Campbell (Fulton).....	R. T. Camp, Fairburn
Candler.....	W. E. Simmons, Metter
Carroll.....	D. S. Reese, Carrollton
Chatham.....	A. J. Waring, Savannah
Chattooga.....	H. D. Brown, Summerville
Cherokee.....	N. J. Coker, Canton
Clarke.....	Linton Gerdine, Athens
Clay.....	W. O. Shepard, Bluffton
Clayton.....	H. D. Kemper, Jonesboro
Cobb.....	W. H. Perkinson, Marietta
Coffee.....	S. L. Vinson, Douglas
Colquitt.....	E. L. Lawson, Moultrie
Cook.....	P. H. Askew, Nashville
Coweta.....	A. A. Barge, Newnan
Crisp.....	T. J. McArthur, Cordele
Decatur.....	Gordon Chason, Bainbridge
DeKalb.....	J. R. Evans, Decatur
Dooley.....	V. C. Daves, Vienna
Dougherty.....	A. H. Hilsman, Albany
Douglas.....	D. Houseworth, Douglasville
Early.....	S. P. Holland, Blakely
Elbert.....	B. B. Mattox, Elberton
Emanuel.....	R. C. Franklin, Swainsboro
Evans.....	J. W. Daniel, Claxton
Floyd.....	M. M. McCord, Rome
Forsyth.....	W. E. Lipscomb, Cumming
Franklin.....	S. D. Brown, Royston
Fulton.....	Frank Wells, Hapeville
Glynn.....	C. B. Greer, Brunswick
Gordon.....	Z. V. Johnston, Calhoun
Grady.....	J. V. Rogers, Cairo
Greene.....	Goodwin Ghesling, Greensboro
Gwinnett.....	D. C. Kelley, Lawrenceville
Habersham.....	J. B. Jackson, Clarkesville

*Copies of prepared addresses for the public or material for preparing them may be secured by writing to the Association or to the Georgia Department of Public Health, State Capitol, Atlanta. Chairmen may select such subjects as may be of the greatest importance and interest to the people of their communities.

Hall	J. H. Downey, Gainesville	Walton	T. R. Aycock, Monroe
Hancock	C. S. Jernigan, Sparta	Ware	W. F. Reavis, Waycross
Harris	W. P. Ellis, Chipley	Warren	F. L. Ware, Warrenton
Hart	W. E. McCurry, Hartwell	Washington	S. B. Malone, Sandersville
Haralson	W. H. Malone, Tallapoosa	Wayne	A. J. Gordon, Jesup
Henry	H. C. Ellis, McDonough	Webster	J. F. Lunsford, Preston
Houston	R. L. Cater, Perry	Whitfield	E. O. Shellhorse, Dalton
Irwin	G. W. Willis, Ocilla	Wilkes	C. E. Wills, Washington
Jackson	E. M. McDonald, Jefferson	Worth	W. C. Tipton, Sylvester
Jasper	F. S. Belcher, Monticello		
Jefferson	S. T. R. Revell, Louisville		
Jenkins	C. Thompson, Millen		
Johnson	H. B. Bray, Wrightsville		
Jones	J. D. Zachary, Gray		
Lamar	J. A. Corry, Barnesville		
Laurens	O. H. Cheek, Dublin		
Liberty	B. H. Gibson, Allenhurst		
Long	D. W. Baggs, Ludowici		
Lowndes	J. F. Mixson, Valdosta		
Macon	C. P. Savage, Montezuma		
Madison	W. D. Gholston, Danielsville		
McIntosh	I. G. Armistead, Warsaw		
Meriwether	R. B. Gilbert, Greenville		
Miller	W. C. Hays, Colquitt		
Mitchell	C. A. Stevenson, Camilla		
Monroe	J. O. Elrod, Forsyth		
Montgomery	J. W. Palmer, Ailey		
Morgan	D. M. Carter, Madison		
Murray	E. H. Dickie, Chatsworth		
Muscogee	Mercer Blanchard, Columbus		
McDuffie	C. Gibson, Thomson		
Newton	W. D. Travis, Covington		
Pulaski	A. R. Bush, Hawkinsville		
Pike	Marvin M. Head, Zebulon		
Polk	P. O. Chaudron, Cedartown		
Putnam	E. F. Griffith, Eatonton		
Quitman	Loren Gary, Georgetown		
Rabun	J. C. Dover, Clayton		
Randolph	W. G. Elliott, Cuthbert		
Richmond	Wm. A. Mulherin, Augusta		
Screven	S. W. Mims, Sylvania		
Seminole	E. C. Smith, Donalsonville		
Spalding	K. S. Hunt, Griffin		
Stephens	C. L. Ayers, Tooca		
Stewart	R. L. Grier, Lumpkin		
Sumter	S. P. Wise, Americus		
Talbot	C. C. Carson, Talbotton		
Taliaferro	Jno. A. Rhodes, Crawfordville		
Tattnall	J. M. Hughes, Glennville		
Taylor	R. C. Montgomery, Butler		
Telfair	Frank Mann, McRae		
Terrell	J. G. Dean, Dawson		
Thomas	E. F. Wahl, Thomasville		
Tift	C. S. Pittman, Tifton		
Toombs	W. W. Odom, Lyons		
Treutlen	L. I. Lanier, Soperton		
Troup	Hugh McCullough, Jr., West Point		
Turner	J. H. Baxter, Ashburn		
Twiggs	A. J. Wood, Fitzpatrick		
Upson	B. C. Adams, Thomaston		
Walker	J. H. Hammond, LaFayette		

PROGRAM

MEDICAL ASSOCIATION OF GEORGIA

Eighty-Third Annual Session

SAVANNAH

Hotel DeSoto, Headquarters

May 17, 18, 19, 20, 1932

Officers

President—Arthur G. Fort, Atlanta.
 President-Elect—Marvin M. Head, Zebulon.
 First Vice-President—Marion C. Pruitt, Atlanta.
 Second Vice-President—H. M. Tolleson, Hahira.
 Secretary-Treasurer—Allen H. Bunce, Atlanta.
 Parliamentarian—John W. Simmons, Brunswick.

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 Alternate, Wm. A. Mulherin.....Augusta
 C. W. Roberts (1931-2).....Atlanta
 Alternate, B. T. Wise.....Americus
 O. H. Weaver (1932-3).....Macon
 Alternate, C. K. Sharp.....Arlington

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 Delegate—G. H. Lang, Savannah.
 Alternate Delegate—Chas. Usher, Savannah.
 Alternate Delegate—T. J. Charlton, Savannah.

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 L. B. Dunn, Savannah.
 M. J. Epting, Savannah.
 Ralston Lattimore, Savannah.
 G. H. Lang, Savannah.

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Ralston Lattimore, Savannah, Chairman.

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Vice-Councilor.....	M. A. Hubert, Athens
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Vice-Councilor.....	J. K. Burns, Jr., Gainesville
Tenth District.....	S. J. Lewis, Augusta
Vice-Councilor.....	H. D. Allen, Jr., Milledgeville
Eleventh District.....	A. S. M. Coleman, Douglas
Vice-Councilor.....	K. McCullough, Waycross
Twelfth District.....	J. Cox Wall, Eastman
Vice-Councilor.....	E. B. Claxton, Dublin

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J. C. Patterson, Cuthbert.
Allen H. Bunce, Atlanta, Secretary-Treasurer.

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Dan Y. Sage, Atlanta, Chairman (1934).
J. W. Palmer, Ailey (1932).
A. R. Rozar, Macon (1933).
Allen H. Bunce, Atlanta, Secretary-Treasurer.
T. F. Abercrombie, Atlanta, Director, Department of
Public Health, State of Georgia.

Medical Defense

Frank K. Boland, Atlanta, Chairman (1933).
Wm. A. Mulherin, Augusta (1934).
J. O. Elrod, Forsyth (1936).
C. L. Ayers, Toccoa, Chairman of Council.
Allen H. Bunce, Atlanta, Secretary-Treasurer.

Hospitals

Grady N. Coker, Canton, Chairman (1932).
C. H. Richardson, Jr., Macon (1933).
K. McCullough, Waycross (1934).
George F. Klugh, Atlanta (1935).
Arthur D. Little, Thomasville (1936).

Abner Wellborn Calhoun Lectureship

James E. Paullin, Atlanta, Chairman (1933).
H. I. Reynolds, Athens (1934).
Eugene E. Murphey, Augusta (1935).

Craig Barrow, Savannah (1936).
Frank K. Boland, Atlanta (1932).

Necrology

A. J. Mooney, Statesboro, Chairman.
J. M. Smith, Valdosta.
J. T. McCall, Rome.

History

E. C. Thrash*, Atlanta, Chairman.
Frank K. Boland, Atlanta.
M. A. Clark*, Macon.
Arthur G. Fort, Atlanta, President.
Marvin M. Zebulon, President-Elect.
A. H. Bunce, Atlanta, Secretary-Treasurer.

*Deceased.

Crawford W. Long Memorial Prize

Wm. R. Dancy, Savannah, Chairman.
Stewart R. Roberts, Atlanta.
V. P. Sydenstricker, Augusta.
George Bachmann, Atlanta.
R. V. Lamar, Milledgeville.

Cancer Commission

J. L. Campbell, Atlanta, Chairman.
G. H. Lang, Savannah.
Chas. H. Watt, Thomasville.
G. Y. Moore, Cuthbert.
E. R. Park, LaGrange.
J. O. Elrod, Forsyth.
R. M. Harbin, Rome.
Stewart D. Brown, Royston.
M. B. Allen, Hoschton.
G. T. Bernard, Augusta.
J. W. Simmons, Brunswick.
Jas. J. Clark, Atlanta.

Advisory Committee—Woman's Auxiliary

B. H. Minchew, Waycross, Chairman.
Marion T. Benson, Atlanta.
W. E. McCurry, Hartwell.
Ralston Lattimore, Savannah.
Paul L. Holliday, Athens.

Fraternal Delegates to Other State Meetings

To visit Alabama: John M. Poer, West Point;
Gordon Chason, Bainbridge.
To visit Florida: J. R. Jordan, Ellaville; I. W.
Irvin, Albany.
To visit North Carolina: J. K. Burns, Gaines-
ville; Frank Eskridge, Atlanta.
To visit South Carolina: Hal M. Davison, Atlanta;
H. J. Rosenberg, Atlanta.
To visit Tennessee: A. R. Rozar, Macon; Geo. B.
Smith, Rome.

DELEGATES TO THE 1932 SESSION*

Baldwin.....W. M. Scott, Milledgeville
Barrow.....
Bartow.....Tanner Lowry, Cartersville
Ben Hill.....G. W. Willis, Ocilla

Bibb	O. H. Weaver, Macon	Montgomery	
Blue Ridge	J. B. Kay, Byron	Morgan	W. C. McGeary, Madison
Brooks		Murray	
Bulloch-Candler-Evans	A. J. Mooney, Statesboro	Muscogee	C. Amory Dexter, Columbus
Burke	W. C. McCarver, Valdosta	Newton	
Butts		Ocmulgee	W. F. Massey, Chester
Campbell	R. T. Camp, Fairburn	(Bleckley, Dodge, Pulaski)	
Carroll	D. S. Reese, Carrollton	Polk	
Chatham	R. V. Martin, Savannah	Putnam	
	G. H. Lang, Savannah	Rabun	
Chattooga		Randolph	Loren Gary, Georgetown
Cherokee	N. J. Coker, Canton	Richmond	G. Lombard Kelly, Augusta
Clarke	J. W. Davis, Athens		H. M. Michel, Augusta
Clayton-Fayette	J. Z. Henry, Ellenwood	Scriven	
Cobb	W. H. Perkinson, Marietta	Spalding	W. C. Miles, Griffin
Colquitt	C. B. Slocumb, Doerun	Stephens	E. F. Chaffin, Toccoa
Coffee		Stewart-Webster	W. C. Sims, Richland
Coweta		Sumter	S. P. Wise, Americus
Crisp		Taliaferro	
Decatur-Seminole	R. F. Wheat, Bainbridge	Tattnall	
DeKalb		Taylor	
Dooley	V. C. Daves, Vienna	Telfair	C. J. Maloy, Helena
Dougherty	J. P. Tye, Albany	Terrell	S. P. Kenyon, Dawson
Douglas		Thomas	E. F. Wahl, Thomasville
Elbert	D. V. Bailey, Elberton	Tift	D. B. Harrell, Tifton
Emanuel	R. C. Franklin, Swainsboro	Toombs	
Floyd	J. H. Mull, Rome	Tri Society	C. K. Sharp, Arlington
Forsyth		(Calhoun, Early, Miller)	
Franklin		Tri Society	
Fulton	W. W. Anderson, Atlanta	(Liberty, Long, McIntosh)	
	W. E. Barber, Atlanta	Troup	
	M. T. Benson, Atlanta	Turner	
	Geo. W. Fuller, Atlanta	Upson	
	Dan Y. Sage, Atlanta	Walker	D. W. Hammond, LaFayette
	W. Frank Wells, Atlanta	Walton	
	Lawson Thornton, Atlanta	Ware	J. E. Penland, Waycross
Glynn	C. B. Greer, Brunswick	Warren	
Gordon	Z. V. Johnston, Calhoun	Washington	E. S. Peacock, Harrison
Grady	J. V. Rogers, Cairo	Wayne	J. T. Colvin, Jesup
Greene		Whitfield	Trammell Starr, Dalton
Gwinnett		Wilcox	L. A. Williams, Abbeville
Habersham	E. H. Lamb, Cornelia	Wilkes	
Hall	J. K. Burns, Gainesville	Worth	
Hancock	C. S. Jernigan, Sparta		
Hart	W. E. McCurry, Hartwell		
Henry	R. L. Tye, McDonough		
Houston-Peach			
Jackson	C. B. Lord, Jefferson		
Jasper			
Jefferson	S. T. R. Revell, Louisville		
Jenkins	Q. A. Mulkey, Millen		
Jones			
Lamar	J. H. Jackson, Barnesville		
Laurens	J. E. New, Dexter		
Lowndes	E. P. Quillian, Clyattville		
Macon			
Madison	Geo. W. Kelley, Carlton		
Meriwether			
Mitchell			
Monroe			

* This list includes the names of all delegates which have been reported to the Secretary-Treasurer.

ANNOUNCEMENTS

Meetings will be held in the Assembly Room, DeSoto Hotel.

Be sure to go to the Registration Desk, present your 1932 card and procure a badge immediately on your arrival.

Discussion of papers is open to all members and guests of the Association. It is not limited to those named on the program.

On arising to discuss a paper the speaker will please announce his name and address clearly for the benefit of the Association and stenographer.

Meetings will be called to order at the hour fixed on the program. It is especially desired that the members be prompt in their attendance.

All manuscript should be typewritten, double spaced

and on one side of the paper only. Papers must be handed to the Secretary immediately after being read.

IMPORTANT NOTICE!

Delegates must present written credentials to the Committee on Credentials from the House of Delegates to secure Delegates' Badges.

Members may not take part in the proceedings until they have registered and procured official badges.

PUBLIC MEETINGS

WEDNESDAY, MAY 18, 10:00 A.M.

Opening Meeting

WEDNESDAY, MAY 18, 8:30 P.M.

Presentation of the "Badge of Service" to the President, Arthur G. Fort, Atlanta, by Jas. M. Smith, Valdosta.

THE RELATION OF DISEASES OF THE NASAL ACCESSORY SINUSES TO SYSTEMATIC DERANGEMENTS

William Mithoefer, Cincinnati, Ohio
Invited Guest

PRACTICAL POINTS IN THE CARE OF PATIENTS WITH INDIGESTION

Walter C. Alvarez, Rochester
Associate Professor of Medicine of the University
of Minnesota Medical School.

THURSDAY, MAY 19, 12:00 NOON

President's Address

The President's Address will be at an open session to which the public and visitors are invited.

MEMORIAL EXERCISES

A. J. Mooney, Chairman
Committee on Necrology

ENTERTAINMENTS

WEDNESDAY, MAY 18, 6:30 P.M.

Annual dinner of the alumni of the University of Georgia Medical Department, Hotel DeSoto.

Annual dinner of the alumni of Emory University School of Medicine, Hotel DeSoto.

THURSDAY, MAY 19, 7:30 TO 10:00 P.M.

Banquet at Hotel DeSoto. John K. Train, Toastmaster.

Presentation of the Crawford W. Long Memorial Prize to _____ by Wm. R. Dancy, Chairman of Committee.

10:00 P.M. to 1:00 A.M.

Dance for members, their wives and guests.

SPORTS

Ample facilities will be available for all who wish to engage in fishing, shooting and swimming.

Golf courses will be open to all players.

MEETING OF THE COUNCIL

The first meeting of the Council will be held in the Men's Parlor of the Hotel DeSoto, Tuesday, May

17th, at 6:00 P.M. Each Councilor will render a written report of conditions in each county in his district. Other meetings of the Council will be held on the call of the chairman.

MEETING OF THE HOUSE OF DELEGATES

Men's Parlor, Hotel DeSoto

TUESDAY, MAY 17, 2:30 P.M.

First meeting of the House of Delegates.

1. Call to order by the President.
3. Roll call.
3. Appointment of Reference Committee.
4. Report of officers:
 - President.
 - President-Elect.
 - Vice-Presidents.
 - Parliamentarian.
 - Secretary-Treasurer.
5. Report of Council by the chairman.
6. Report of committees:
 - a. Scientific Work.
 - b. Public Policy and Legislation.
 - c. Arrangements.
 - d. Medical Defense.
 - e. Hospitals.
 - f. Georgia State Nurses' Association.
 - g. Necrology.
 - h. Cancer Commission.
 - i. History.
 - j. Abner Wellborn Calhoun Lectureship.
 - k. Crawford W. Long Memorial Prize.
 - l. Advisory Committee—Woman's Auxiliary.
 - m. Special Committees.
7. Report of Delegates to the A. M. A.
8. Report of Fraternal Delegates.
9. Unfinished business.
10. New business.

THURSDAY, MAY 19, 8:00 A.M.

Second meeting of the House of Delegates.

1. Call to order by the President.
2. Reading of minutes.
3. Report of committees.
4. Unfinished business.
5. New business.

OFFICIAL REPORTER

Mrs. Irene H. Snyder.....Chicago

PROGRAM

The papers for each meeting must be read as scheduled on the program.

WEDNESDAY, MAY 18, 1932

Assembly Room, Hotel DeSoto

10:00 A.M.

Call to order by the President, Arthur G. Fort, Atlanta.

INVOCATION

Rev. C. C. J. Carpenter.....Savannah

ADDRESS OF WELCOME

R. V. Martin.....Savannah

RESPONSE TO ADDRESS OF WELCOME

S. T. R. Revell.....Louisville

SCIENTIFIC PAPERS

1. Tuberculosis of the Kidney; Symptoms; Treatment and Apparent Prevalence in Georgia.
Wallace L. Bazemore, Macon.

To lead the discussion:

S. J. Sinkoe, Atlanta.

Wm. Shearouse, Savannah.

2. Abnormal Ureters.

S. A. Kirkland, Atlanta.

To lead the discussion:

Earl Floyd, Atlanta.

Willis P. Jordan, Columbus.

3. Perinephritic Abscess.

E. B. Anderson, Americus.

To lead the discussion:

J. L. Pittman, Atlanta.

R. F. Wheat, Bainbridge.

4. Biopsy.

Everett L. Bishop, Atlanta.

To lead the discussion:

Chas. C. Harrold, Macon.

A. J. Ayers, Atlanta.

5. Cosmetic Dermatology.

Jack Jones, Atlanta.

H. S. Alden, Atlanta.

To lead the discussion:

Steve P. Kenyon, Dawson.

G. T. Bernard, Augusta.

Abner Wellborn Calhoun Lecture

CLINICAL MANIFESTATION OF MALIGNANT DISEASE

Dean Lewis, Baltimore

Professor of Surgery, Johns Hopkins University

School of Medicine, Baltimore, Maryland.

WEDNESDAY, MAY 18, 2:30 P.M.

Symposium on Sinus Disease

Papers 1, 2 and 3

1. Symptoms and Diagnosis of Sinus Disease.

Francis Blackmar, Columbus.

2. Complications of Sinus Disease.

Wm. O. Martin, Jr., Atlanta.

3. Treatment of Sinus Disease.

Calhoun McDougall, Atlanta.

To lead the discussion:

Papers 1, 2 and 3

Geo. H. Lang, Savannah.

B. H. Minchew, Waycross.

4. Vitamine Therapy.

D. H. Garrison, Tate.

To lead the discussion:

T. E. Rogers, Macon.

Wm. R. Dancy, Savannah.

5. Coronary Thrombosis and Angina Pectoris—

Lantern Slides and Moving Pictures.

J. Reid Broderick, Savannah.

To lead the discussion:

J. A. Fountain, Macon.

C. C. Aven, Atlanta.

6. Observations of Some Common Breast Lesions.
Wm. Perrin Nicolson, Jr., Atlanta.

To lead the discussion:

B. Thad Wise, Americus.

J. Turner McCall, Rome.

WEDNESDAY, MAY 18, 8:30 P.M.

Presentation of the "Badge of Service" to the President, Arthur G. Fort, Atlanta, by Jas. M. Smith, Valdosta.

THE RELATION OF DISEASES OF THE NASAL
ACCESSORY SINUSES TO SYSTEMATIC
DERANGEMENTS

William Mithoefer, Cincinnati, Ohio

Invited Guest

PRACTICAL POINTS IN THE CARE OF PATIENTS
WITH INDIGESTION

Walter C. Alvarez, Rochester

Associate Professor of Medicine of the University
of Minnesota Medical School.

Invited Guest

THURSDAY, MAY 19, 9:00 A.M.

1. Jaundice—The Effect on the Liver of Experimental Ligation of the Common Duct and Partial Hepatectomy.

J. Gaston Gay, Atlanta.

To lead the discussion:

L. Minor Blackford, Atlanta.

Glenville Giddings, Atlanta.

2. Symposium on The Psychoneuroses.

(a) The Origin and Development of the
Psychoneuroses.

Lewis M. Gaines, Atlanta.

(b)' The Ocular Manifestations.

F. Phinizy Calhoun, Atlanta.

(c) The Circulatory Manifestations.

E. F. Wahl, Thomasville.

(d) The Digestive Manifestations.

R. H. Oppenheimer, Atlanta.

(e) The Sex Question.

W. W. Young, Atlanta.

(f) The Treatment of the Psychoneurotic State.

W. R. Houston, Augusta.

To lead the discussion:

(Papers a, b, c, d, e and f).

Stewart R. Roberts, Atlanta.

Eugene E. Murphey, Augusta.

Geo. L. Echols, Milledgeville.

THURSDAY, MAY 19, NOON

Assembly Room—Hotel DeSoto

President's Address

ECONOMIC DRIFT OF MODERN MEDICINE

Arthur G. Fort, Atlanta

President, Medical Association of Georgia

MEMORIAL EXERCISES

A. J. Mooney, Statesboro
Chairman, Committee on Necrology

THURSDAY, MAY 19, 2:30 P.M.

1. Peroral Endoscopy in Relation to General Medicine.
B. McH. Cline, Atlanta.
To lead the discussion:
I. W. Irvin, Albany.
Geo. F. Eubanks, Atlanta.
 2. The Effects of Injections of Ovarian Follicular and Anterior Pituitary Hormones on Conception and Pregnancy in Laboratory Animals.
G. Lomard Kelly, Augusta.
To lead the discussion:
W. B. Crawford, Savannah.
W. F. Shallenberger, Atlanta.
 3. An Efficient Method of Traction for Fractures of Femur.
C. H. Watt, Thomasville.
To lead the discussion:
Lawson Thornton, Atlanta.
C. F. Holton, Savannah.
 4. The Method of Precision in the Diagnosis of Early Pregnancy. (Aschheim-Zondek Test).
H. F. Sharpley, Jr., Savannah.
To lead the discussion:
Lawrence Lee, Savannah.
B. T. Beasley, Atlanta.
- SYMPOSIUM ON PUBLIC HEALTH
Papers 5 and 6
5. The Physician's Part in the Public Health Program.
J. A. Redfearn, Albany.
 6. How Much Curative Medicine Should a Health Department Do to Put Over an Adequate Health Program.
C. L. Ridley, Macon.
To lead the discussion:
Papers 5 and 6
Frank Bird, Valdosta.
J. D. Applewhite, Macon.

FRIDAY, MAY 20, 9:00 A.M.

1. Rickets.
Mercer Blanchard, Columbus.
To lead the discussion:
M. M. McCord, Rome.
W. W. Anderson, Atlanta.
2. Common Cold.
A. J. Waring, Savannah.
To lead the discussion:
C. E. Boynton, Atlanta.
Frank P. Norman, Columbus.
3. Intracranial Birth Hemorrhages.
C. M. Burpee, Augusta.
To lead the discussion:
B. B. Davis, Gainesville.
Benjamin Bashinski, Macon.
4. Carcinoma of the Colon.
M. J. Egan, Savannah.
To lead the discussion:
Thos. Harrold, Macon.
A. G. Little, Valdosta.

5. The Clinical Significance of the Classification of Gliomas.

Edgar F. Fincher, Jr., Atlanta.

To lead the discussion:

Ralph H. Chaney, Augusta.

Lee Howard, Savannah.

6. Amebiasis—Its Prevalence and Protean Manifestations.

S. F. Rosen, Augusta.

David R. Thomas, Jr., Augusta.

To lead the discussion:

Mark S. Dougherty, Jr., Atlanta.

V. P. Sydenstricker, Augusta.

ELECTION OF OFFICERS

President-Elect.

First Vice-President.

Second Vice-President.

Parliamentarian.

Two Delegates to the A. M. A.

Two Alternate Delegates to the A. M. A.

Councilors for the Ninth, Tenth, Eleventh and Twelfth Districts.

Selection of meeting place for 1933.

CONSTITUTION AND BY-LAWS

Chapter II, Section 2. No papers or addresses before the Association, except those of the President and invited essayists, shall occupy more than fifteen minutes in their delivery; and no member shall speak longer than five minutes, nor more than once on any subject, provided that each essayist shall have five minutes in which to close the discussion of his paper.

Chapter VIII, Section 1. The deliberations of this Association shall be governed by parliamentary usage as contained in Roberts' Rules of Order, when not in conflict with this Constitution and By-Laws.

Chapter VIII, Section 2. All papers read before the Association shall become its property. Each paper shall be deposited with the Secretary when read, and if this is not done, it shall not be published.

No miscellaneous or business matters will be discussed before the scientific sessions, but will be referred to the House of Delegates.

Resolution Adopted 1921

Resolved. That a member who sends in a title of a paper to be placed on the program and is not present to read the paper shall pay the penalty of not having an opportunity to appear on the program for two years. Unless he presents an excuse acceptable to the Committee on Scientific Work.

We are instructed by the President to announce to all essayists that the sessions of the Scientific Program of the Association will begin on time, and that the above regulations of the By-Laws in reference to the program will be strictly enforced.

JAS. E. PAULLIN, *Chairman,*

J. C. PATTERSON,

A. H. BUNCE, *Secretary-Treasurer.*

Committee on Scientific Work.

IN MEMORIAM*

- Arnold, Thomas L., Kingston, March 3, 1931.
 Brown, Millard S., Fort Valley, May 8, 1931.
 Carter, James Nottingham, Savannah, December 6, 1931.
 Clark, Mallie Adkin, Macon, February 6, 1932.
 Currie, Malcolm M., Alston, February 12, 1932.
 Daniel, James Clarence, Decatur, May 15, 1931.
 Davidson, Arthur Chase, Sharon, August 20, 1931.
 Dowman, Charles Edward, Atlanta, November 14, 1931.
 Googe, William R., Abbeville, August 20, 1931.
 Harbin, Samuel R., Canton, January 20, 1932.
 Harison, William Henry, Augusta, April 27, 1931.
 Henderson, Daniel Tillett, Macon, December 31, 1931.
 Holliday, William Zellers, Atlanta, February 20, 1932.
 Logan, A. J., Plains, May 12, 1931.
 McLain, Charles F., Calhoun, December 26, 1931.
 McMaster, David Edwin, Tennesse, January 8, 1932.
 Ray, Alonzo Terrell, Sharon, November 24, 1931.
 Richardson, Charles Hyatt, Montezuma, August 17, 1931.
 Sawyer, Annie Laurie, Atlanta, January 20, 1932.
 Sessions, James Henry, Homerville, Aug. 12, 1931.
 Smith, William W., Clio, November 29, 1931.
 Suggs, Clarence Eugene, April 15, 1931.
 Thrash, Elmore Callaway, Atlanta, June 22, 1931.
 White, Alfred S., Flovilla, December 24, 1931.
 White, William S., Fort Valley, June 12, 1931.
 Williams, Kirby S., Thomaston, December 13, 1931.
 Vaughn, William B., White, November 10, 1931.

*This is the list of members who have died since our last annual session as it appears on our records. Please notify the Secretary-Treasurer of any errors or omissions.

THE PREVENTION OF THE INTRODUCTION OF DISEASES FROM ABROAD

In a report recently made public, Surgeon General H. S. Cumming of the Public Health Service points out that at the beginning of the past fiscal year cholera was present in epidemic form in several islands of the Philippine Archipelago. There was a minor extension to the city of Manila, some fifty cases occurring there. Interisland quarantine was enforced against several insular ports at various times during the year. It is not likely that this epidemic, however, followed any recent importation of the infection, as history shows that cholera recurs in epidemic form in these islands every four or five years, and may be considered as endemic there.

During the past fiscal year no instance occurred of the importation from abroad of any quarantinable disease into the United States. Several cases of quarantinable diseases reached our quarantine stations and were detained.—U. S. P. H. S., January 26, 1932.

CONSTITUTION AND BY-LAWS OF THE MEDICAL ASSOCIATION OF GEORGIA

Constitution

ARTICLE I.—NAME OF THE ASSOCIATION.

The name and title of this organization shall be the Medical Association of Georgia.

ARTICLE II.—PURPOSES OF THE ASSOCIATION

The purpose of this Association shall be to federate and bring into one compact organization the entire medical profession of the State of Georgia; to extend medical knowledge and advance medical science; to elevate the standard of medical education and to secure the enactment and enforcement of just medical laws; to promote friendly intercourse among physicians; to guard and foster the material interests of its members and to protect them against imposition; and to enlighten and direct public opinion in regard to the great problems of state and medicine, so that the profession shall become more capable and honorable within itself, and more useful to the public, in the prevention and cure of disease, and in prolonging and adding comfort to life.

ARTICLE III.—COMPONENT SOCIETIES

Competent societies shall consist of those county societies which hold charters from this Association.

ARTICLE IV.—COMPOSITION OF THE ASSOCIATION

Section 1. This Association shall consist of members and delegates.

Sec. 2. Members: The members of this Association shall be the members of the component county medical societies to which only white physicians shall be eligible.

Sec. 3. Delegates: Delegates shall be those members who are elected in accordance with this constitution and by-laws to represent their respective component societies in the House of Delegates of this Association.

ARTICLE V.—HOUSE OF DELEGATES

The House of Delegates shall be the legislative body of the Association, and shall consist of: (1) delegates elected by the component county societies; (2) the officers of the Association enumerated in Section 1 of Article IX of the Constitution; (3) ex-presidents and delegates to the American Medical Association.

ARTICLE VI.—COUNCIL

The Council shall be the Board of Trustees and Finance Committee of the Association. The Council shall have full authority and power of the House of Delegates between annual sessions, unless the House of Delegates be called into session as provided in the Constitution and By-Laws.

It shall consist of the Councilors, the President, the President-Elect and the Secretary-Treasurer of the Association. Five of its members shall constitute a quorum.

ARTICLE VII.—SESSIONS AND MEETINGS

Section 1. The annual sessions shall take place on the second Wednesday in May at such place as shall be designated by the Association, provided that in case of conflict with the meeting of the American Medical Association the Council may change the date by publishing a notice in the Journal of the Medical Association of Georgia three months before the session.

Sec. 2. Special meetings of either the Association or the House of Delegates may be called by a two-thirds vote of the Council, or upon the petition of twenty delegates.

ARTICLE VIII.—SECTIONS AND DISTRICT SOCIETIES

Section 1. The House of Delegates may provide for a division of the scientific work of the Association into appropriate sections, and for the organization of such Councilor district societies as will promote the best interests of the profession, such societies to be composed exclusively of members of component county societies.

ARTICLE IX.—OFFICERS

Section 1. The officers of this Association shall be a President, President-Elect, two Vice-Presidents, a Secretary-Treasurer, a Parliamentarian, and twelve Councilors, one from each congressional district of the state.

Sec. 2. The officers, except the Secretary-Treasurer, Parliamentarian and Councilors, shall be elected annually, provided that after the annual meeting of 1928 a President-Elect and not a President shall be elected annually. The President-Elect shall assume his office as President immediately after the next annual meeting following his election. The terms of the Councilors shall be for three years, as may be arranged, viz: the councilors from the first, second, third and fourth districts for three years; those for the fifth, sixth, seventh and eighth districts for two years; those for the ninth, tenth and eleventh districts for one year (1905); councilor from the twelfth district to be elected with the ninth, tenth and eleventh for the full term of three years. The secretary-treasurer shall be elected for a term of five years, and the parliamentarian for a term of three years. All these officers shall serve until their successors are elected and installed.

Sec. 3. The officers of this Association shall be elected by ballot, and without nomination, at 12 o'clock noon, on the third day of the annual session. The Councilors shall be elected at the same time, but on nomination by their respective District Societies at the annual meeting of such Societies preceding the

meeting of the Association at which the vacancy occurs. If there is no election on the first ballot, the three names receiving the highest number of ballots shall be voted on, the other names being dropped. If there is no election on the second ballot, the two names receiving the highest number of ballots shall be voted on until an election occurs. Delegates to the American Medical Association shall be elected at the same time and in the same manner.

ARTICLE X.—FUNDS AND EXPENSES

Funds shall be raised by an equal per capita assessment on each component society. The amount of the assessment shall not exceed the sum of \$10.00 per capita per annum. Funds may be appropriated by the House of Delegates to defray the expenses of the Association, for publications, and for such other purposes as will promote the welfare of the profession. All resolutions appropriating funds must be approved by the Finance Committee before action is taken thereon. (Amended, May, 1929, page 482.)

ARTICLE XI.—RATIFICATION

The House of Delegates shall submit all questions before it to the Association for ratification.

ARTICLE XII.—THE SEAL

The Association shall have a common seal, with power to break, change or renew the same at pleasure.

ARTICLE XIII.—AMENDMENTS

Any amendment that may be offered to the Constitution shall lie over until the next annual session; and for its adoption at such session shall require a two-thirds vote of all present and voting.

By-Laws

CHAPTER I.—MEMBERSHIP

Section 1. The name of a physician on the properly certified roster of members of a component society, which has paid its annual assessment, shall be *prima facie* evidence of membership in this Association.

Sec. 2. Any person who is under sentence of suspension or expulsion from a component society or whose name has been dropped from its roll of members, shall not be entitled to any of the rights or benefits of this Association, nor shall he be permitted to take part in any of its proceedings until he has been relieved of such disability.

Sec. 3. Each member in attendance at the annual session shall enter his name on the registration book, indicating the component society of which he is a member. When his right to membership has been verified by reference to the roster of his society, he shall receive a badge which shall be evidence of his right to all the privileges of membership at that session. No member shall take part in any of the proceedings of an annual session until he has complied with the provisions of this section.

Sec. 4. Any member for old age, length of service, or other good reasons, may upon recommendation of the Board of Censors, be elected to honorary membership of his county society without dues. Such member shall be enrolled as an honorary member of his county society and the Association, and shall be entitled to all the privileges of the Association.

CHAPTER II.—GENERAL MEETINGS

Sec. 1. All registered members may attend and participate in the proceedings and discussions of the general meetings. Visitors duly accredited to represent the Association of other states, or of the District of Columbia, not exceeding two in number for each organization, may attend upon, and participate in the discussion of the general meetings, but shall not have a vote. Such delegates may read papers upon invitation of the Committee on Scientific Work. The general meetings shall be presided over by the President or by one of the Vice-Presidents.

Sec. 2. No papers or addresses before the Association, except those of the President and invited essayists, shall occupy more than fifteen minutes in their delivery; and no member shall speak longer than five minutes, nor more than once on any subject, provided that each essayist shall have five minutes in which to close the discussion of his paper.

Sec. 3. Entertainments. Any social entertainment which may be given by this Association shall be confined to the evening of the second day.

Sec. 4. Guests. Any physician not a resident of this state but a member of his state association, or any distinguished scientist not a physician, may be counted a guest during any annual session on invitation of the President, and shall be accorded the privilege of participating in the scientific work of that session.

CHAPTER III.—HOUSE OF DELEGATES

Section 1. The House of Delegates shall meet on the day preceding the first day of the annual session, the time to be fixed by the Committee on Scientific Work. It may adjourn from time to time as may be necessary to complete its business; provided that its hours shall conflict as little as possible with the general meetings. The order of business shall be arranged as a separate section of the program.

Sec. 2. Each component county society shall be entitled to send to the House of Delegates each year one delegate for every fifty members, and one for each fraction thereof, but each component society which has made its annual report and paid its assessment as provided in this Constitution and By-Laws shall be entitled to one delegate. Should the regular delegate from any county not be present at the meeting, the President shall appoint a substitute from that county to act.

Sec. 3. Twenty delegates present shall constitute a quorum.

Sec. 4. It shall through its officers, council and otherwise, give diligent attention to and foster the

scientific work and spirit of the Association, and shall constantly study and strive to make each annual session a stepping-stone to future ones of higher interest.

Sec. 5. It shall consider and advise as to the material interest of the profession, and of the public in those important matters wherein it is dependent on the profession, and shall use its influence to secure and enforce all proper medical and public health legislation, and to diffuse popular information in relation thereto.

Sec. 6. It shall make careful inquiry into the condition of the profession of each county in the State, and shall have authority to adopt such methods as may be deemed most efficient for building up and increasing the interests in such county societies as already exist, and for organizing the profession in counties where societies do not exist. It shall especially and systematically endeavor to promote friendly intercourse among physicians of the same locality, and shall continue these efforts until if possible every physician in every county of the State has been brought under medical society influence.

Sec. 7. It shall encourage post-graduate and research work as well as home study, and shall endeavor to have the results utilized, and intelligently discussed in the county societies.

Sec. 8. It shall divide the State into councilor districts, one for each congressional district, and when the best interests of the Association and profession will be promoted thereby, organize in each a district medical society, and all members of component county societies and no others shall be members in such district societies.

Sec. 9. It shall have authority to appoint committees for special purposes from among members of the Association who are not members of the House of Delegates. Such committees shall report to the House of Delegates and may be present and participate in the debate thereon.

CHAPTER IV.—DUTIES OF OFFICERS

Section 1. The President shall preside at all meetings of the Association and of the House of Delegates; shall appoint all committees not otherwise provided for, and shall perform such other duties as custom and parliamentary usage may require. He shall be the real head of the profession of the State during his term of office, and as far as practicable, shall visit, by appointment, the various sections of the State and assist the Councilors in building up the county societies, and in making their work more practical and useful.

Sec. 2. The Vice-Presidents shall assist the President in the discharge of his duties. In the event of the President's death, resignation or removal, the Vice-Presidents, in their order, shall succeed him.

In order to give him a better opportunity of becoming more fully acquainted with his duties and with the needs of the Association, the President shall be elect-

ed one year prior to taking office. During this time he shall be known as President-Elect and shall be ex officio member of the standing committees, and shall make recommendations at the next annual session. (Amended, May, 1930.)

Sec. 3. The Secretary-Treasurer shall give bond in the sum of One Thousand Dollars. He shall demand and receive all funds due the Association, together with the bequests and donations.

Sec. 4. The Secretary-Treasurer shall attend the general meetings of the Association and the meetings of the House of Delegates, and shall keep the minutes of their respective proceedings in separate record books. He shall be ex-officio Secretary of the Council. He shall be custodian of all record-books and papers belonging to the Association. He shall provide for the registration of the members, delegates and accredited visitors at the annual session. He shall with the co-operation of the secretaries of the component societies, keep a card-index register of all the legal practitioners of the State by counties, noting on each his status in relation to his county society, and on request transmit a copy of this list to the American Medical Association. He shall aid the Councilors in the organization and improvement of the county societies in the extension of the power and usefulness of this Association. He shall conduct the official correspondence, notifying members of meetings, officers of their election, and committees of their appointment and duties. He shall employ such assistants as may be ordered by the House of Delegates with the approval of the Association, and shall make an annual report to the Association. He shall supply each component society with the necessary blanks for making their annual reports; shall keep an account with the component societies, charging against each society its assessment and collect the same. Acting with the committee on scientific work, he shall prepare and issue all programs. The amount of his salary shall be fixed by the Association. He shall be editor of the Journal of the Medical Association of Georgia. He shall employ such assistants as may be ordered by the Council or the House of Delegates. He shall annually make a report of his doings to the House of Delegates.

He shall furnish a balance sheet at each annual meeting for the past fiscal year to be published in the Journal. This shall consist of an itemized statement of all financial transactions of the past year, all accounts made, money received and from whom and all moneys disbursed, to whom, and for what purpose, with vouchers attached. A fiscal year includes the period of time between the first day of May and the last day of April.

CHAPTER V.—COUNCIL

Section 1. The Council shall meet on the day preceding the annual session and daily during the session, and at such other times as necessity may require, subject to the approval of the President. It shall meet on the last day of the annual session of

the Association to organize and outline work for the ensuing year. It shall elect a chairman and clerk, who, in the absence of the Secretary of the Association, shall keep a record of its proceedings. It shall, through its chairman, make an annual report to the House of Delegates. It shall be the business body of the Association and attend to the business of the Association in the interim between meetings.

Sec. 2. Each Councilor shall be organizer and peacemaker for his district. He shall visit each county in his district at least once a year for the purpose of organizing component societies where none exist, for inquiring into the conditions of the profession, and for improving and increasing the zeal of the county societies and their members. He shall make an annual report of his work and of the condition of the profession of each county in his district at the annual session of the House of Delegates. The necessary traveling expenses incurred by such Councilor in the line of the duties herein imposed may be allowed by the House of Delegates on a properly itemized statement, but this shall not be construed to include his expense in attending the annual session of the Association. Each Councilor may appoint a Vice-Councilor to assist him in the performance of his duties in that district.

Sec. 3. The Council shall be the board of censors of the Association. It shall consider all questions involving the right and standing of members, whether in relation to other members, to the component societies, or to this Association. All questions of an ethical nature brought before the House of Delegates or the general meeting shall be referred to the Council without discussion. It shall hear and decide all questions of discipline affecting the conduct of members of a component society, on which an appeal is taken from the decision of an individual Councilor, or to which attention has been called by the Councilor or interested members. It shall hear and decide all questions affecting unethical conduct on the part of any members at any annual session, and its decision in all such matters shall be final when ratified by the Association.

Sec. 4. In sparsely settled sections it shall have authority to organize the physicians of two or more counties into societies, to be suitably designated so as to distinguish them from district societies, and these societies, when organized and chartered shall be entitled to all rights and privileges provided for component societies until such counties shall be organized separately.

Sec. 5. The Council shall provide for and superintend the publication and distribution of all proceedings, transactions and memoirs of the Association, and shall have authority to appoint such assistants to the editor as it deems necessary. It shall manage and conduct the Journal of the Medical Association of Georgia, which is the organ of the Association, and

all money paid into the treasury as dues shall be received as subscriptions to the Journal.

All money received by the Council and its agents, resulting from the discharge of the duties assigned to them, must be paid to the Secretary-Treasurer of the Association. As the Finance Committee it shall annually audit the accounts of the Secretary-Treasurer and other agents of this Association, and present a statement of the same in its annual report to the House of Delegates, which report shall also specify the character and cost of all the publications of the Association during the year, and the amount of all other property belonging to the Association under its control, with such suggestions as it may deem necessary. In the event of a vacancy in the office of the Secretary-Treasurer, the Council shall fill the vacancy until the next annual election.

Sec. 6. All reports on scientific subjects and all scientific discussions and papers heard before the Association, shall be referred to the Journal of the Medical Association of Georgia for publication. The editor, with the consent of the Councilor for the district in which he resides, may curtail or abstract papers or discussions, and the Council may return any paper to its author which it may not consider suitable for publication.

Sec. 7. All commercial sessions shall be within the control and direction of the Council.

Sec. 8. In the absence of a Councilor and Vice-Councilor the President is empowered to appoint a representative from the district as acting Councilor, who shall have full rights and power of a Councilor.

Sec. 9. Each Councilor shall render at every session a written report of each county in his district.

Sec. 10. Any member of the Council who fails to attend two regular successive sessions of the Council, or whose district does not show evidence of the performance of his duties during the year, unless he renders an acceptable excuse to the Council, is subject to have his position declared vacant by the President and a successor appointed by the President.

CHAPTER VI.—COMMITTEES

Section 1. The standing committee shall be as follows:

A Committee on Scientific Work.

A Committee on Public Policy and Legislation.

A Committee on Arrangements.

A Committee on Medical Defense, and such other committees as may be necessary.

Sec. 2. The Committee on Scientific Work shall consist of three members of which the Secretary-Treasurer shall be one, and shall determine the character and scope of the scientific proceedings of the Association for each session. Thirty days previous to each annual session it shall prepare and issue a program announcing the order in which papers, discussions and other business shall be presented.

This By-Law shall not prohibit the Committee on

Scientific Work from inviting not more than two distinguished members of the national organization to deliver addresses or read papers at any annual meeting.

Sec. 3. The Committee on Public Policy and Legislation shall consist of three members and the President and Secretary, the Commissioner of Health of the State of Georgia, and a sub-committee of three members from each Councilor District appointed by the chairman when needed. It shall represent the Association in securing and enforcing legislation in the interest of public health and of scientific medicine. It shall keep in touch with professional and public opinion, shall endeavor to shape legislation so as to secure the best results for the whole people, and shall strive to organize professional influence so as to promote the general good of the community in local, state and national affairs and elections.

Sec. 4. The Committee on Arrangements shall be appointed by the component society in which the annual session is to be held. It shall provide suitable accommodations for the meeting places of the Association and of the House of Delegates and, of their respective committees, and shall have general charge of all arrangements. Its chairman shall report an outline of the arrangements to the Secretary-Treasurer for publication in the program, and shall make additional announcements during the session as occasion may require.

Sec. 5. The Committee on Medical Defense shall consist of five members, of whom the Chairman of the Council and the Secretary-Treasurer of the Association shall be members. The other members, one of whom shall act as Chairman of the Committee, shall be elected by the Council for a period of five years. Those elected at this meeting (April 19, 1916), shall serve one, three and five years, respectively.

It shall be the duty of the Committee on Medical defense to investigate and defend all damage suits against the Medical Association of Georgia; to investigate all claims of civil malpractice made against its members; to take full charge of such cases, which after investigation, they decide to be proper cases for defense; to defend all such cases in the courts of last resort, to furnish General Counsel and pay court cost usual to such litigation, and reasonable fees for local attorneys as shall be arranged by General Counsel. Provided that any member who has indemnity insurance shall have such insurance bear its portion of the expense. However they shall not pay, or obligate the Medical Association of Georgia to pay any judgment rendered against any member upon the final determination of any case. They shall be empowered to contract with such agents or attorneys as they may deem necessary for the proper carrying out of this By-Law. (Amended, May 14, 1931. page 359 of Journal.)

The assistance for defense, as herein provided, shall be available only to members of the Medical Associa-

tion of Georgia in good standing. Any member who has not paid his annual dues by April 1st shall not be considered in good standing in the application of this By-Law.

Any member or members of the Association threatened with suit for civil malpractice shall immediately communicate with the Secretary of the Association and shall give full and complete information in reference to all the circumstances alleged in the complaint. The Secretary shall proceed immediately to investigate the circumstances reported and shall advise with the attorneys or agents employed by the Committee for this purpose. The member sued, or threatened with suit, shall be consulted and shall have the complete confidence of the Committee in all transactions connected with the investigation in question. The Committee shall have the authority to require of a constituent society or the president thereof, the appointment of a committee of investigation in any such case, and it may direct the committee so appointed to report to the Committee on Medical Defense and not to the society from which it was appointed.

The Committee on Medical Defense may also, at its discretion, arrange to prosecute illegal practitioners in the State of Georgia and assist in the enforcement of the Medical Practice Act of this State.

CHAPTER VII.—COUNTY SOCIETIES

Section 1. All county societies now in affiliation with this Association, or those which may hereafter be organized in the State, which have adopted principles of organization not in conflict with this Constitution and By-Laws, shall on application, receive a charter from and become a component part of this Association.

Sec. 2. As rapidly as can be done after the adoption of this Constitution and By-Laws, a medical society shall be organized in every county in the State in which no component society exists, and charter shall be issued thereto.

Sec. 3. Charters shall be issued only on approval of the Council, and shall be signed by the President and Secretary of this Association. The Association shall have authority to revoke the charter of any component society whose actions are in conflict with the letter or spirit of this Constitution and By-Laws.

Sec. 4. Only one competent medical society shall be chartered in any county.

Sec. 5. Each county society shall judge of the qualifications of its own members, but as such societies are the only portals to this Association, every reputable and legally registered white physician who does not practice or claim to practice, nor lend his support to any exclusive system of medicine, shall be eligible to membership. Before a charter is issued to any county society, full and ample notice and opportunity shall be given to every such physician in the county to become a member.

Sec. 6. No matter what the unethical conduct or discipline of the members of the county society may

be, both plaintiff and defendant shall have the right to appeal to the Council whose decision shall be final when ratified by the Association.

Sec. 7. In hearing appeals the Council may admit oral or written evidence, as in its judgment will best and most fairly present the facts, but in case of every appeal, both as a board and as individual Councilors in district and county work, efforts at conciliation and compromise shall precede all such hearings.

Sec. 8. When a member in good standing in a component county society moves to another county in this state, he shall be given a written certificate of these facts by the secretary of his society, without cost, for transmission to the secretary of the society in the county to which he moves. Such member shall be considered to be in good standing from the county society from which he was certified and in the Medical Association of Georgia to the end of the period for which his dues have been paid. (Amended, May, 1929, page 476-7)

Sec. 9. A physician living on or near a county line may hold his membership in that county most convenient for him to attend, on permission of the component society in whose jurisdiction he resides.

Sec. 10. Each component society shall have general direction of the affairs of the profession in its county, and its influence shall be constantly exerted for bettering the scientific, moral and material condition of every physician in the county; and systematic efforts shall be made by each member, and by the society as a whole, to increase the membership until it embraces every qualified physician in the county.

Sec. 11. At some meeting in advance of the annual session of this Association, each county society shall elect a delegate or delegates to represent it in the House of Delegates of this Association, in the proportion of one delegate to each fifty members, or fraction thereof, and the Secretary of the society shall send a list of such delegates to the Secretary of this Association at least ten days before the annual session.

Sec. 12. The Secretary of each component society shall keep a roster of its members, and of the non-affiliated registered physicians of the county, in which shall be shown the full name, address, college and date of graduation, date of license to practice in this State, and such other information as may be deemed necessary. In keeping such roster the Secretary shall note any changes in the personnel of the profession by death, or by removal to or from the county, and in making his annual report he shall be certain to account for every physician who has lived in the county during the year.

Sec. 13. The Secretary of each component society shall forward its assessment, together with its roster of officers and members, list of delegates, and lists of non-affiliated physicians of the county, to the Secretary of this Association each year, thirty days before the annual session.

Sec. 14. Any county society which fails to pay

its assessment, or make the report required, on or before April 1 of each year, shall be held as suspended, and none of its members or delegates shall be permitted to participate in any of the business or proceedings of the Association, or of the House of Delegates, until such requirement has been met.

Sec. 15. The Secretary of each county society shall report to the Journal of the Medical Association of Georgia full minutes of each meeting and forward to it all scientific papers and discussions which the society shall consider worthy of publication.

CHAPTER VIII.—RULES AND ETHICS

Section 1. The deliberations of this Association shall be governed by parliamentary usage as contained in Roberts' Rules of Order, when not in conflict with this Constitution and By-Laws.

Sec. 2. All papers read before the Association shall become its property. Each paper shall be deposited with the Secretary when read, and if this is not done it shall not be published.

Sec. 3. The principles of medical ethics of the American Medical Association shall be those of this Association.

Sec. 4. Any member of this Association, on locating in a new place for practicing his profession may place his professional card, containing name, address, telephone number, and statement as to whether or not his practice will be limited to any particular class of disease, in the local paper for a period of not longer than one month. The placing of such card for this period of time shall not be considered unethical. The use of the word "specialist" by any member in connection with his name in any newspaper, telephone directory, or other public places, shall be considered unethical.

CHAPTER IX.—AMENDMENTS

These By-Laws may be amended at any annual session by a majority vote of the Association after the amendment has lain on the table for one day.

RESOLUTIONS, MEDICAL ASSOCIATION OF GEORGIA

1921

Resolved, That a member who sends in a title of a paper to be placed on the program and is not present to read the paper, shall pay the penalty of not having an opportunity to appear on the program for two years, unless he presents an excuse acceptable to the Committee on Scientific Work.

1922

Be it Resolved, That the House of Delegates recommend that the Committee on Scientific Work make available on the program of the State Association space for two papers from each Councilor district; that a definite time be assigned for reading and discussion of each of these papers, and they be given

precedence over all other business. The said papers are to be selected by the Committee on Scientific Work, and, in case a writer does not respond when his name is called, some paper will be substituted and the schedule not deranged. The President ruled that this resolution is only a recommendation and not a law.

1928

Resolved, That the delegates to the A. M. A. elected at this and succeeding meetings of the Medical Association of Georgia be installed January 1st, following their election, and that their term of service run for two years thereafter. And be it further

Resolved, That our delegates be authorized to attend the regular and any called meeting of the House of Delegates of the American Medical Association during the term to which they are elected.

1929

Resolved, That the House of Delegates approve the increase of dues to \$7.00 per capita per annum.

Resolved, That the House of Delegates adopt the report of the Council authorizing the Committee on Public Policy and Legislation to spend the necessary amount of money to carry on its work.

Resolved, That in order to expedite the business of the House of Delegates, all reports of special and regular committees of the Association involving matters of public policy, legislation or appropriation of the funds of the Association be submitted in writing to the Secretary of the Association a sufficient time in advance of the regular annual session, about March 15th, to permit of the publication of said recommendations either in the official program prior to the session or in a special circular that shall be mailed to the constituent societies, in order that the delegates may be advised of the proposed changes. (May, 1929, page 475.)

ARTICLE IX, SECTION 3.—OFFICERS CONSTITUTION—PROPOSED AMENDMENT

Section 3. In the second line strike out the phrase, "and without nomination". Following the third line, the last word being, "session"; insert "Nomination for office shall be made orally, but the nominating speech must not exceed two minutes". So when amended the Section will read as follows: "The officers of this Association shall be elected by ballot at 12 o'clock noon on the third day of the annual session. Nomination for office shall be made orally, but the nominating speech must not exceed two minutes. The Councilors shall be elected at the same time, but on nomination by their respective District Societies at the annual meeting of such Societies preceding the meeting of the Association at which the vacancy occurs. If there is no election on the first ballot, the three names receiving the highest number of ballots shall be voted on, the other names being dropped. If there is no election on the second ballot, the two names receiving the highest number of ballots shall be voted on until an election occurs. Delegates to the American Medical Association shall be elected at the same time and in the same manner."

WOMAN'S AUXILIARY MEDICAL ASSOCIATION OF GEORGIA OFFICERS

President.....Mrs. Ralston Lattimore, Savannah
 President-Elect.....Mrs. S. T. R. Revell, Louisville
 1st Vice-President.....Mrs. J. Bonar White, Atlanta
 2nd Vice-President.....Mrs. C. B. Almand, Winder
 3rd Vice-Pres., Mrs. D. N. Thompson, Elberton

Recording Secy.....Mrs. J. E. Penland, Waycross
 Cor. Secretary, Mrs. Wm. R. Dancy, Savannah
 Treasurer.....Mrs. Ben Bashinski, Macon
 Parliamentarian Mrs. Allen H. Bunce, Atlanta
 Editor.....Mrs. G. H. Johnson, Savannah

INVITATION

The members of the Woman's Auxiliary to the Georgia Medical Society are delighted that your next annual session will be held at the Hotel DeSoto, Savannah, May 17-18-19-20. We extend to you a cordial and urgent invitation to attend the business meetings and all entertainments which it has been our pleasure to plan for you. Please honor us with your presence.

Faithfully yours,
 MRS. FLORINE W. SHEAROUSE,
*President of the Woman's
 Auxiliary to the Georgia
 Medical Society.*

Savannah, Ga.

PROGRAM

*of the
 Auxiliary to the Medical Association of
 Georgia*

May 17-20, 1932

WEDNESDAY, MAY 18TH, 10:30 A.M.:

Special meeting of the Executive Board and
 Delegates' Luncheon at Bannon Lodge
 at 1:30 p.m.

Afternoon—Drive to Tybee.

Card party at the DeSoto Hotel, 8:30 p.m.

THURSDAY, MAY 19TH:

Annual meeting at the DeSoto Hotel.
 Banquet, Gold Room, DeSoto Hotel.

FRIDAY, MAY 20TH:

Post Convention Board Meeting.
 Visit to Telfair Art Academy.

HEALTH CONFERENCES

The Woman's Auxiliary to the Medical Association of Georgia has been called upon to help sponsor a series of health conferences put on by the State Department of Public Health. There will be twenty of these regional conferences, and the localities where the conferences are to be held have been determined by center of population and roads. The programs have been arranged according to the specific need of each locality in regard to health. Details of the program will be in all county and town papers. Watch for these announcements, and use your influence to make these conferences a success. Mrs. Bonar White, of Atlanta,

State Chairman of Health Education, will have charge of directing the activities of the Auxiliary in this work.

(Signed) MRS. RALSTON LATTIMORE,
President.

Savannah, Ga.

HEALTH PROGRAM TEA

Medical Auxiliary Entertains at Y. W. C. A.

The Woman's Auxiliary to the Georgia Medical Society entertained yesterday afternoon at the Y. W. C. A. with a health program tea, which was attended by over a hundred club women.

The rooms were beautifully decorated with palms and spring flowers, and the tea table had a lovely lace cloth with a large bowl of spring flowers as a centerpiece. This was surrounded by yellow unshaded candles in silver holders. Receiving the guests were: Mrs. William Shearouse, President of the Auxiliary; Mrs. Hugo Johnson, the Vice-President; Mrs. Ralston Lattimore, State President of the Medical Auxiliary; Mrs. J. S. Howkins, President of the Savannah Women's Federation, and Mrs. George C. Ross, President of the Chatham County Council Parent-Teacher Association.

Mrs. Shearouse welcomed the guests and introduced Mrs. Lattimore, the State President, who acknowledged the introduction. In her talk Mrs. Shearouse said:

"The Woman's Auxiliary to the Georgia Medical Society was organized to extend the aims of the medical profession through the wives of the doctors to various women's organizations, which look to advancement in health and education, as health education is one of the reasons for the existence of our auxiliary, and since we, working among ourselves can do so little, we wish to offer our services as an auxiliary to you, and to ask your co-operation in working for community health. Most of you are expecting to have, from time to time during the year, health education programs. If not, won't you plan to have such a program? In arranging this program, the desirable information is not always at hand. If you will call on us, we will furnish you with a speaker through the Medical Society and health films, suitable for children or grown people, in both standard and 16 m.m. sizes. We can also furnish you with correct health literature, free of charge.

Dr. William Myers gave a talk on cancer control, in which he advocated education in cancer control and urged early medical attention. Doctor Myers is a mem-

ber of the Cancer Commission of the Medical Association of Georgia and his talk was most interesting.

The definite work that women can do in public health was told by Dr. Victor Bassett, the county health physician, and has received recognition from Prof. Winslow of Yale University, an authority on public health. Health films were shown under the direction of Mrs. Bassett. The musical program of the afternoon was three songs beautifully sung by Mrs. T. B. Inaninette. Her selections were "Spring Song," (Guion); "Songs My Mother Taught Me," (Dvorak) and "Waltz Song," (Victor Herbert). She was accompanied by Mrs. William H. Myers.

After the program tea was served. Those serving were: Mrs. Julian Quattlebaum, Mrs. J. C. Metts, Mrs. J. C. O'Neill, Mrs. H. H. McGee, Jr., Mrs. C. G. Redmond, Mrs. C. R. Riner, Mrs. L. W. Shaw, Mrs. A. A. Morrison, Mrs. E. C. Demmond, Mrs. R. L. Neville and Mrs. E. M. Baker, Jr.—Savannah Morning News, March 5, 1932.

COLORED DOCTORS' WIVES

The colored doctors' wives of Georgia have recently organized an Auxiliary to their state medical association. Their state president, who lives in Savannah, has applied to Mrs. Ralston Lattimore, State President of the Woman's Auxiliary to the Medical Association of Georgia, for the details of the "Health-Program" Tea that the Savannah Auxiliary recently gave. Mrs. Lattimore supplied her with health literature for distribution, and helped her plan a similar tea to be given by them during Health Week in April. At this tea, Dr. V. H. Bassett, City and County Health Officer, has consented to present to them in detail his plans for a "Wage Earner's Health Certificate", which would mean better health for the colored people, and protection for their employers.

MRS. G. HUGO JOHNSON.

FIRST DISTRICT MEETING

The mid-winter meeting of the Auxiliary to the First District Medical Society was held in Statesboro on February 24, 1932, at the home of Mrs. R. L. Cone.

There were forty-two ladies present.

The meeting was called to order at 11:15 a.m. by the President, Mrs. L. F. Lanier, of Sylvania.

The Lord's Prayer was said in unison.

Mrs. A. J. Mooney, of Statesboro, gave a most cordial address of welcome, to which Mrs. W. H. Myers, of Savannah, gave the response.

Minutes of the last meeting held on July 19, 1931, were read by the Secretary, Mrs. J. L. Nevil, Metter.

Mrs. Lanier introduced the honor guests—Mrs. Ralston Lattimore, State President; Mrs. Chas. C. Harold, and Mrs. Wm. H. Myers, Past-Presidents; Mrs. Hugo Johnson, State Editor; Mrs. William Shearouse, State Chairman of the Student Loan Fund; and Mrs. Julian Quattlebaum, State Chairman of Public Policy and Legislation.

Greetings from Mrs. S. T. R. Revell, President-Elect of the State, were read.

Reports from the following counties were given:

Bulloch-Candler Counties, by Mrs. Mooney;

Chatham County, by Mrs. Shearouse;

Screven County, by Mrs. W. H. Doster, of Rocky Ford.

The State President, Mrs. Lattimore, gave a talk on "How Each Auxiliary Member Can Help the President 'Put Over' the Program Urged by the State", in which some very constructive ideas were advanced.

Mrs. Shearouse talked on "Who is Eligible for the Student Loan Fund, and the Necessity of Increasing This Fund Each Year"; and Mrs. W. E. Simmons, of Metter, told "How Each Auxiliary Can Raise Money for the Loan Fund."

Dr. William R. Dancy, of Savannah, spoke on the subject of how the Auxiliary, by working through other organizations could help carry forward the health program urged by the medical profession, especially in controlling communicable diseases.

At the conclusion of the program, the ladies were taken to the Georgia State Normal College, where a delicious luncheon was served to the doctors and their wives. The members of the Auxiliary returned to the home of Mrs. Cone after luncheon, and spent the afternoon playing bridge.

MRS. G. H. JOHNSON.

Savannah, Ga.

BOOKS RECEIVED

Primary Carcinoma of the Lung; Bronchiogenic Cancer. A Clinical and Pathological Study in Two Parts. By B. M. Fried, M.D., Peter Bent, Brigham Hospital, Boston, Mass. Contains 247 pages. Publishers: The Williams & Wilkins Company, Baltimore, Md. Price \$5.00.

Fertility and Sterility in Marriage—Their Voluntary Promotion and Limitation. By Th. H. Van De Velde, M.D., formerly Director of the Gynecological Clinic at Haarlem, Holland. Translated by F. W. Stella Brown. Contains 487 pages. Publishers: Covici, Friede, Inc., 386 Fourth Avenue, New York City, N. Y.

Control of Conception—Medical Aspects of Human Fertility. Series issued by the National Committee on Maternal Health, Inc. An Illustrated Medical Manual. By Robert Latou Dickinson and Louise Stevens Bryant. Contains 290 pages. Publishers: The Williams & Williams Company, Baltimore, Md.

Applied Physiology by Samson Wright, M. D., Professor of Physiology, University of London, Middlesex Hospital Medical School. Fourth Edition. Contains 552 pages. Publishers: Oxford University Press, 114 Fifth Avenue, New York City.

How's Your Blood Pressure? by Clarence L. Andrews, M.D., Attending Physician and Medical Chief at the Atlantic City Hospital. Contains 225 pages. Publishers: The MacMillan Company, 60 Fifth Avenue, New York City. Price \$2.50.

GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. ABERCROMBIE, M.D., *Director*

A DRIVE FOR PHYSICAL EXAMINATIONS

In the next few months much educational material will be sent out from local, state and national organizations on the mother and her child, owing to the world-wide observance of May Day. In our country the May Day idea, with its traditional history of centuries, has been taken as a basis for the centralizing of thought on the child. The meaning has become more than a day of play and the established May pole dance. It has now a deep significance in that we are thinking of May Day as a day for the examination of our children to see that they are physically fit, to see that they are immunized against typhoid, smallpox and diphtheria.

We have just a little less than 200,000 children who enter school in September for the first time. These and their younger brothers and sisters need to be looked after by our physicians with regularity. They need not only superficial examinations, but real honest-to-goodness going over to find out their condition, and when defects are found, seeing that they are corrected.

Many organizations will soon be at work on this problem. In every county in Georgia committees will be at work, and in almost every school programs will be put on. Most of them will deal directly with the physical well-being of the child.

The Department of Public Health of Georgia is doing everything it can to encourage this work. We are lending our efforts to encourage the proper care of the child, and proper care cannot be started until we know what we are to deal with. We wish to urge our physicians to assist us by being ready when called upon to give needed information and when necessary hold public meetings and give talks on the necessity of a united effort on the part of every one to participate in the welfare of our children.

We are indeed glad that our Association has decided, through its Committee on Public Health and Legislation, to again put on Health Education Week, beginning April 24th and running through May 1st. This committee has done splendid, constructive work in the past, and we are sure that this year will not be an exception.

If the Department of Public Health can be of any service to any of the physicians who wish to prepare papers, in furnishing statistics that may be available, we will be only too glad to do so.

Another splendid service that the Association is rendering is the appointment of a representative in each county to assist the Parent-Teacher Associations in the summer round-up. This list, furnished by our President, Dr. A. G. Fort, is being mailed to each chairman of the summer round-up, and no doubt they will be consulted many times.

We sincerely hope that our Women's Auxiliary will interest their entire membership in the activities of May Day. Much can be done by them to direct the organization to a constructive program in examination of the supposedly well child and in prenatal care. In fact, every one can and should unite on the slogan for 1932, "Support your community child health program; it protects your home."

For any additional information write May Day Chairman, Department of Public Health, Capitol, Atlanta, Georgia.

DEATHS IN CHILDBED

The physicians of Georgia are always interested in doing the right thing. The general death rate is too high, but there is one of the problems of Georgia that should receive our special attention, and that is the very high maternal death rate.

Our rate remains particularly high; a total of 593 mothers died in childbed last year. This quite likely means in each case a broken home; one or several children who are left motherless. A great many of these deaths could and should be prevented.

The State Department of Public Health has been trying to educate the people to apply to the physician just as soon as the individual suspects that she is pregnant, that she may receive a thorough examination and instructions in prenatal care.

It is estimated that with proper prenatal care at least two-thirds of our mothers who are dying could be saved.

The rates, as compiled for the past four years, are of interest to all who may be called upon to do this kind of work, and that means almost if not quite 90 per cent of the physicians of the state.

This gives us a four-year annual average of 10.0 per 1,000 live births for the state as a whole.

The Vital Statistics Division of the Georgia Department of Public Health gives the following data:

DEATHS AND DEATH RATES PER 1,000 LIVE BIRTHS FROM PUERPERAL CAUSES, IN SPECIFIED AREAS: 1927 TO 1930

Area	—Number of Deaths—				—Rate Per 1,000 Live Births—				Annual Average Rates 1927- 1930
	1927	1928	1929	1930	1927	1928	1929	1930	1930
The State.....	578	622	549	658	9.4	10.5	9.4	10.9	10.0
Total of Cities Listed Below.....	141	153	126	138	11.7	13.9	11.8	12.8	12.6
Balance of State.....	437	469	423	520	8.8	9.7	8.8	10.5	9.5
Athens, Ga.....	7	12	4	3	16.7	29.3	11.6	7.6	17.9
Atlanta, Ga.*.....	56	55	53	58	10.5	10.9	10.8	11.3	11.0
Augusta, Ga.....	20	18	13	17	13.4	15.2	11.1	14.2	13.5
Columbus, Ga.....	12	19	13	14	10.4	21.5	14.8	16.9	16.0
Macon, Ga.....	18	18	17	15	13.3	14.4	14.1	12.6	13.6
Rome, Ga.....	6	9	6	5	15.0	18.5	12.3	10.6	15.2
Savannah, Ga.....	22	22	20	26	11.8	12.4	12.2	16.3	13.4

*That part of Atlanta located in Fulton County.

The corresponding rate for the total of the seven selected cities is 12.6.

In that part of the state exclusive of these selected cities, the four-year annual average rate is 9.5.

In this connection it might be well for us to refresh our minds as to the rates in the United States as a whole and in comparison with several other countries. In the Netherlands the rate is 2.9; Denmark only a fraction higher; England-Wales, 4.1; Canada, 5.6; United States, 6.5.

The Department of Public Health has for free disposal a prenatal care folder and a book of sixty pages entitled Prenatal Care. If you would like to have a supply of either, write for it. This literature should be in the hands of every expectant mother. If you prefer, these will be mailed direct from the Department of Public Health for you if you will supply us with your patient's name and address.

The Department of Public Health also has for free distribution to the physicians of the State the solution of silver nitrate in wax ampoules to be used in the eyes of the newborn.

The necessity of proper food and its control is as much a part of the practice of medicine as the prescribing of remedies to relieve abnormal conditions. The consequences of deficiency in foods of the right kind is sure to bring about subnormal conditions that will ultimately result in disease.

The food needs of growing children present the most important of all problems to be met in planning relief budgets. Growth increases the demand, not only upon the quantity of food, but also upon the quality. Growth also hastens the ill effects of an inadequate diet. Certain specific inadequacies in diet result in deficiency diseases, such as rickets, scurvy and pellagra. But the results of prolonged general underfeeding—commonly known as "general malnutrition"—while they may be less drastic and more easily overlooked, are not less serious. In times of economic stress

children suffer both types of damage unless the diet is carefully safeguarded.

The standard of all relief should be such as to provide a fully adequate diet, which allows variety and an ample margin of safety in all nutrition essentials, and every effort to maintain such standard should be made, even under emergency conditions. In order to provide the essential foods for health and growth this diet must contain first of all the protective foods, milk, cod liver oil (for young children), vegetables and fruit. These provide safe-guards to health and growth not found to a sufficient extent in other foods.

In addition, an adequate diet must include certain other foods, those which supply energy (breads, cereals, sugars, fats) and those which supply additional body-building substances (cereals, legumes, eggs, cheese, meat, or fish).

It may be emphasized that no amount of these other foods will take the place of the protective foods. Children because of the demand of growth, and pregnant and nursing mothers also, need these protective foods more than do other members of the family. Deficiency diseases are inevitable if the supply of protective foods is insufficient.

Milk, vegetables and fruits are essential, such as tomatoes, fresh or canned, cabbage, greens, especially turnip tops, with pot-liquor—some raw vegetables each day, for every member of the family. For your children, cod liver oil will protect the body against diseases that may stunt growth and bring on disease.

According to L. MINOR BLACKFORD and WILLIAM TELFORD BOOTH, Atlanta, Ga. (*Journal A. M. A.*, March 12, 1932), congenital dextroposition of the normal heart without evidence of transposition of other viscera in most cases is probably secondary to eventration of the diaphragm. They report a case of this type in an athletic youth. The condition has been entirely asymptomatic up to the present, and the authors believe that the position of his heart will never cause the patient any trouble. It is possible, however, that subphrenic symptoms may develop or that an extraordinary increase in intra-abdominal pressure, brought on by trauma or tremendous exertion, may result in rupture of the weakened diaphragm.

GEORGIA STATE NURSES ASSOCIATION

Officers

President—Miss Alice F. Stewart, R. N., Augusta.
 First Vice-President—Miss Dora A. Kershner, R. N., Macon.
 Second Vice-President—Miss Lillian Cumbee, R. N., Emory University.
 Secretary—Miss Florence Pund, R. N., Augusta.
 Treasurer—Miss Jane Van De Vrede, R. N., Atlanta.
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District Presidents

First—Mrs. Dorothy Treagle, R. N., Savannah.
 Second—Mrs. B. Y. Vann, R. N., Thomasville.
 Fourth—Miss Lucia Massee, R. N., Cuthbert.
 Fifth—Mrs. Sue B. Paille, R. N., Atlanta.
 Sixth—Mrs. Sarah P. English, R. N., Sandersville.
 Seventh—Miss Shirley Hamrick, R. N., Cedartown.
 Eighth—Miss Lynda Bray, R. N., Athens.
 Ninth—Miss Ruby Falls, R. N., Gainesville.
 Tenth—Mrs. Olive Barbin, R. N., Augusta.

Headquarters

131 Forrest Avenue, N. E., Atlanta.

PROFESSIONAL SUICIDE!

Startling facts regarding the nursing situation have recently been disclosed—facts which prove conclusively the imperative need to reduce the number of nurses graduating and to put graduate service into the hospitals.

Statistics given out by the United States Census Bureau, following figures secured in the 1930 census, show that the number of nurses to population is all out of proportion. Full returns have not yet been compiled by the bureau, but the figures covering the District of Columbia and eighteen states, including Georgia, show that the total increase of population for the ten-year period between 1920 and 1930 was seven per cent; whereas, the total number of trained nurses has increased 78 per cent. And there is every reason to believe that tabulations covering the balance of the states will correspond to these figures.

Of course the overproduction of nurses has been known for sometime. In 1926 a Committee on the Grading of Nursing Schools, composed of representatives from the National League of Nursing Education, the American Nurses' Association, the National Organization for Public Health Nursing, the American Medical Association, the American College of Surgeons, the American Hospital Association and the American Public Health Association, adopted a five year program of work; and statistics secured through a survey, which has been carried on under the direction of Dr. William Darrach, Chairman, and Dr. May Ayres Burgess, Director, support the above figures.

Briefly, the facts are these: In 1880 there were 15 schools of nursing in this country, graduating that year 157 student nurses. In 1900 there were 432 schools, graduating that year 3456 nurses. By 1910 the number of

schools had increased to 1129 and 8140 nurses were graduated that year. By 1920, 1775 schools graduated 14,980 nurses; and by 1930, 2100 schools graduated 20,000 nurses.

According to the U. S. Census, there were in 1930 a total of 258,000 trained nurses in this country.

So concerned is the Grading Committee and the three National Nursing Organizations that every effort will be made to meet the problem of overproduction.

Quoting from the March number of *The American Journal of Nursing*: "If nursing is to avoid disaster, the steady production of more students, who become graduates, must cease. It must cease not only in the small, poor schools, but in the large schools—some of which are bad and many of which are good. Graduate nurses must be employed. If they are unemployable they must be re-educated. The hospital schools of nursing have produced them. They are members of the profession. Unless their morale is to break down completely, they must either be eliminated or utilized.

"This is a year of national economic distress. Hospitals are short of funds. How then can they take care of their patients with reduced numbers of student nurses, and with increased numbers of graduate nurses? Let us not assume that there is no solution for this problem. Nurses who are intimately familiar with hospital administration may be able to discover new economic, new methods of organization, which will make reduction in the number of student nurses possible. If there is a solution, overproduction in nursing can be controlled. But unless some solution can be found, which it is within the practical means of the hospital to adopt, nurses will continue to grow in numbers and distress.

"Nursing is particularly fortunate in that it has a number of women in hospital and

nursing positions who have demonstrated superior administrative ability. It is to them that the profession must look for leadership in the present emergency”.

In Georgia there are nearly five thousand registered nurses at this time in addition to undergraduate and practical nurses. In greater Atlanta alone there were in 1930, 1119 graduates and 705 practical nurses—more than four times as many as can be employed in normal times. This number has been increased the past year. The figures will compare in other centers—Savannah, Macon, Augusta, Columbus, and other smaller cities.

The nursing situation in Georgia is acute. Hospital authorities and physicians should take the initiative in plans to reorganize nursing service at the earliest opportunity.

COUNTIES REPORTING FOR 1932

Gordon County Medical Society

The Gordon County Medical Society announces the following officers for 1932:

President—W. R. Barnett, Calhoun.
Secretary-Treasurer—Z. V. Johnston, Calhoun.
Delegate—Z. V. Johnston, Calhoun.
Alternate Delegate—W. G. Banister, Plainville.

Madison County Medical Society

The Madison County Medical Society announces the following officers for 1932:

President—H. G. Banister, Ila.
Vice-President—C. H. Bryant, Comer.
Secretary-Treasurer—W. D. Gholston, Danielsville.
Delegate—Geo. W. Kelley, Carlton.
Alternate Delegate—W. D. Gholston, Danielsville.
Censors—Geo. W. Kelley, C. H. Bryant and W. D. Gholston.

Ben Hill County Medical Society

The Ben Hill County Medical Society announces the following officers for 1932:

President—Ralph Russell, Fitzgerald.
Vice-President—W. P. Coffee, Fitzgerald.
Secretary-Treasurer—L. S. Osborne, Fitzgerald.
Delegate—G. W. Willis, Ocilla.
Alternate Delegate—Chas. Wilcox, Fitzgerald.
Censors—R. M. Ware, S. L. McElroy and E. J. Dorminy.

Grady County Medical Society

The Grady County Medical Society announces the following officers for 1932:

President—Eugene Clower, Cairo.
Secretary-Treasurer—J. V. Rogers, Cairo.
Delegate—J. V. Rogers, Cairo.
Alternate Delegate—J. R. Dykes, Cairo.

Hart County Medical Society

The Hart County Medical Society announces the following officers for 1932:

President—J. I. Jenkins, Bowman.
Vice-President—B. C. Teasley, Hartwell.

Secretary-Treasurer—A. O. Meredith, Hartwell.
Delegate—W. E. McCurry, Hartwell.
Alternate Delegate—B. C. Teasley, Hartwell.
Censors—G. T. Harper, W. E. McCurry and B. C. Teasley.

Carroll County Medical Society

The Carroll County Medical Society announces the following officers for 1932:

President—H. L. Barker, Carrollton.
Vice-President—S. F. Scales, Carrollton.
Secretary-Treasurer—H. J. Goodwyn, Carrollton.
Delegate—O. D. King, Bremen.

Campbell County Medical Society

The Campbell County Medical Society announces the following officers for 1932:

President—W. R. Camp, Fairburn.
Vice-President—T. P. Bullard, Palmetto.
Secretary-Treasurer—A. J. Green, Union City.
Delegate—R. T. Camp, Fairburn.

Chattooga County Medical Society

The Chattooga County Medical Society announces the following officers for 1932:

President—F. W. Hall, Summerville.
Vice-President—W. J. Bryant, Summerville.
Secretary-Treasurer—H. D. Brown, Summerville.

Stephens County Medical Society

The Stephens County Medical Society announces the following officers for 1932:

President—W. B. Heller, Toccoa.
Vice-President—J. E. D. Isbell, Toccoa.
Secretary-Treasurer—C. L. Ayers, Toccoa.
Delegate—E. F. Chaffin, Toccoa.
Alternate Delegate—J. H. Terrell, Toccoa.

Jenkins County Medical Society

The Jenkins County Medical Society announces the following officers for 1932:

President—M. E. Perkins, Millen.
Vice-President—H. G. Lee, Millen.
Secretary-Treasurer—C. Thompson, Millen.
Delegate—Q. A. Mulkey, Millen.
Alternate Delegate—C. Thompson, Millen.

Laurens County Medical Society

The Laurens County Medical Society announces the following officers for 1932:

President—O. H. Cheek, Dublin.
Vice-President—T. B. Kea, Adrian.
Secretary-Treasurer—Chas. L. Hicks, Dublin.
Delegate—J. E. New, Dexter.
Alternate Delegate—C. A. Hodges, Dublin.
Censors—E. B. Claxton, A. T. Coleman and C. G. Moye.

Morgan County Medical Society

The Morgan County Medical Society announces the following officers for 1932:

President—D. M. Carter, Madison.
Vice-President—W. M. Fambrough, Bostwick.
Secretary-Treasurer—W. C. McGeary, Madison.
Delegate—W. C. McGeary, Madison.
Alternate Delegate—J. L. Porter, Rutledge.

BOOK REVIEW

Clinical Allergy, Asthma and Hay Fever. By Francis M. Rackemann, M.D., physician to the Massachusetts General Hospital. Instructor in Medicine, Harvard Medical School. Published by the Macmillan Company, New York, 1931; 617 pages; thirty illustrations. Price \$10.50. Foreword by Dr. Hans Zinsser.

In the year 1698 Sir John Floyer wrote a Treatise on Asthma which described a postmortem of pulmonary emphysema and assigned the cause of spasmodic asthma as "a contracture of the muscular fibers of the bronchi". Thus the results of asthma were beautifully described 234 years ago, but the many causes and the mechanism of production were never dreamed of at that time.

In 1898 Richet found that the serum of eels when injected into a laboratory animal for the second time caused sudden death. This reaction he called "anaphylaxis". The application of the facts of anaphylaxis to human disease and the entire development of the conception of human allergy has taken place since about 1915.

This monograph by Doctor Rackemann is a masterly and comprehensive piece of work. The text is divided into two parts, part one dealing with the phenomenon of hypersensitiveness, and part two treating with the clinical manifestations of allergy. Each of the twenty-three chapters is followed by a liberal bibliography.

Quoting from the introduction to part two, "These five characteristics are of practical importance in the clinic in so far as they indicate that an allergic basis of the patient's symptoms should be carefully considered:

1. A presenting symptom which can be explained by smooth muscle spasm or by increased capillary permeability.
2. The occurrence of one or several other manifestations of allergy.
3. A positive family history of allergy.
4. The presence of positive skin tests.
5. The presence of a blood eosinophilia.

In the chapter dealing with treatment the following modern methods are detailed along with numerous reports from the literature: the use of adrenalin, ephedrine, sodium iodide, x-ray therapy of the pituitary and chest, ultraviolet irradiation, operations for cutting the cervical sympathetic or the vagus, endocrine therapy, and the protein shock therapy including the vaccine treatment and the malaria treatment.

Although the entire field of allergy is still in the experimental stage, Doctor Rackemann has given us a scientific presentation of the subject filled with significant statistics and case reports chosen from his extensive clinical material.

EVERT A. BANCKER, JR., M.D.

Public Health Reports, dated March 18th, contain special articles on "Prevalence of Communicable Diseases in the United States" and "Construction and Use of Impinger Dust Sampling Apparatus".

COMMUNICATIONS

To the Editor:

Georgia's death rate from typhoid fever is four times that of the United States as a whole. It is shamefully high. The State Department of Health has been making an effort to locate and place under supervision as many of the human carriers as it is possible, realizing if they can be found and controlled that we will go a long way toward eliminating the disease. With this in view, we have issued the following regulation on typhoid fever:

"That no person shall be released from isolation until two successive stool and urine specimens have been submitted to an approved laboratory for examination. The first specimen shall be taken at the time the patient is allowed to get up. If this specimen is negative, the second shall be taken fifteen days later. In the event that either of the said specimens shall show the presence of typhoid bacilli, the case shall be released from isolation only on such terms and conditions as shall be prescribed by the State Commissioner of Health as being necessary for the protection of the public. Such terms and conditions shall remain in full force and effect until three successive negative cultures of both the stool and urine of the case have been secured, specimens of said cultures to be taken not less than fifteen days apart."

On March 23, 1932, the Council of the Medical Association of Georgia adopted a resolution approving this regulation.

I am appealing to you to help us enforce this regulation. If you will, Georgia's typhoid rate will be materially reduced within the next few years.

T. F. ABERCROMBIE, M.D., *Director,*

Public Health, State of Georgia.

Atlanta, March 30, 1932.

ARCHBOLD MEMORIAL HOSPITAL

To the Editor:

I wish to correct a statement which I made in reference to the John D. Archbold Memorial Hospital, Thomasville, in the editorial I wrote for the February issue of the Journal. I had in mind a social service worker whose only duty it would be to look after cancer cases when I said "only one feature—a social service worker—is lacking to make this department complete". I have just learned, however, that the hospital has had a social worker for the past two years. It, therefore, gives me pleasure to correct this error.

J. L. CAMPBELL, M.D.

Atlanta, Ga., March 16, 1932.

ANDREW B. RIVERS, FRANCES R. VANZANT and HIRAM E. ESSEX, Rochester, Minn. (*Journal A. M. A.*, April 2, 1932), have demonstrated in certain specimens of commercial mucin the presence of large amounts of a secretagogue which by biologic tests seem to be histamine. The presence of this substance may be looked on as a contaminant which can be avoided if proper methods of preparation are used.

NEWS ITEMS

Dr. Frank K. Boland, Atlanta, delivered an address on March 30th, at the University of Georgia, Athens, entitled "Dr. Crawford W. Long's Work". Doctor Long was the discoverer of ether anesthesia.

The Tri-State Medical Society (Louisiana, Arkansas, Texas) held its twenty-seventh annual meeting at Texarkana, Ark.-Texas, on March 16-17.

The Fulton County Medical Society held its semi-monthly meeting at the Academy of Medicine, Atlanta, on March 17th. Dr. Herbert S. Alden, Atlanta, gave a case report, "Sarcoid of the Skin: Its Relation to Pulmonary Tuberculosis"; Dr. J. Calvin Weaver, Atlanta, case report, "Arachnoid Cyst of the Brain—Traumatic"; Dr. Wm. C. Warren, Jr., Atlanta, case report, "Lateral Sinus Thrombosis"; Dr. Wm. Willis Anderson, Atlanta, clinical talk, "Sickle-Cell Anemia"; Dr. Lewis M. Gaines, Atlanta, read a paper entitled "Disturbances of Digestion and Their Relation to the Nervous System". Discussions were led by Drs. Jas. N. Brawner, Floyd W. McRae, and Jas. E. Paullin, all of Atlanta.

The Clinical Society of the New York Polyclinic Medical School and Hospital, New York City, held its regular meeting on April 4th. Dr. Frederick M. Allen, New York, gave a preliminary case report, "Insulin in the Treatment of Tuberculosis"; Dr. S. Phillip Goodhart, New York, spoke on "The Adrenals in Their Relation to the Nervous System"; Dr. John Carroll, New York, read a paper, "The Constitutional Background of Graves' Disease, Allied Syndromes"; Dr. George W. Crile, Cleveland, Ohio, spoke by invitation on "Principles Involved in and Clinical Aspects of Derivation of the Adrenal Glands".

The Second District Society of the Georgia State Nurses' Association met at the Annie Mills Archbold Hall, Thomasville, on March 25th. Dr. Mary J. Erickson, Thomasville, discussed and gave a demonstration of the use of maggots in the treatment of osteomyelitis. Moving pictures of cases treated in the John D. Archbold Memorial Hospital, Thomasville, were shown.

The John D. Archbold Memorial Hospital Training School for Colored Nurses, Thomasville, graduated Rosa Belle Robinson on February 28th after she completed the usual three year course of study. Five others will graduate on May 12th.

Dr. B. T. Beasley, Atlanta, was re-elected Secretary-Treasurer of the Southeastern Surgical Congress, which met in Birmingham on March 7-8. Dr. Frank K. Boland, Atlanta, succeeded Dr. C. W. Roberts as President. Dr. Willis C. Campbell, Memphis, was chosen as President-Elect.

Dr. J. H. Hines, Atlanta, was elected by the Board of Trustees of Grady Hospital, Atlanta, Superintendent of Medical Service.

The Dooly County Medical Society met at the office of Dr. V. C. Daves, Vienna, on March 1st.

Georgia physicians who appear on the program of the American Medical Association to read papers at the New Orleans session are: Dr. Frank K. Boland, Atlanta, "Results of Treatment in Acute Appendicitis—Lantern Demonstration"; Dr. C. B. Upshaw, Atlanta, "The Conservative Treatment of Eclampsia—Lantern Demonstration"; Dr. Grady E. Clay, Atlanta, "Angioid Streaks of the Choroid and Pseudoxanthoma Elasticum"; Dr. Murdock Eguen, Atlanta, "A Clinical Study of Appendicitis Following Tonsillectomy"; Dr. William Willis Anderson, Atlanta, "Sickle Cell Anemia"; Dr. Stewart R. Roberts, Atlanta, "A Clinical Sign of Right Bundle Branch Block, with Remarks on the Disturbance of the Mechanism, Results and Treatment—Lantern Demonstration"; Dr. M. Hines Roberts, Atlanta, "Studies in Congenital Syphilis—Lantern Demonstration"; Dr. Jack W. Jones, Atlanta, "Pseudoxanthoma Elasticum—Report of Four Cases Showing Its Association with Angioid Streaks of the Retina—Lantern Demonstration"; Dr. L. Minor Blackford, Atlanta, Bismuth and the Treatment of Cardiovascular Syphilis—Lantern Demonstration"; Dr. M. L. Boyd, Atlanta, "Carcinoma of Bladder—Indications for Nephrostomy and Nephrectomy—Lantern Demonstration"; Dr. J. H. Kite, Decatur, "Treatment of Congenital Clubfoot—Motion Picture Demonstration". Doctors to lead discussions on papers are: Dr. Edgar F. Fincher, Jr., Atlanta; Dr. Floyd W. McRae, Atlanta; Dr. Arthur G. Fort, Atlanta; Dr. William A. Mulherin, Augusta; Dr. J. H. Kite, Decatur.

The Cobb County Medical Society met at the Marietta Hospital, Marietta, on March 1st. Dr. Dan Y. Sage and Dr. J. Calvin Weaver, both of Atlanta, were on the program.

The Bartow County Medical Society met at Doctor Lowry's Emergency Hospital, Cartersville, March 2nd.

The Tenth District Medical Society and the Richmond County Medical Society held a joint meeting at the University Hospital, Augusta, on March 11th. Dr. W. L. Moss, Dean of the Medical Department of the University of Georgia, delivered an address entitled "Our Medical College"; Dr. S. G. Gant, New York City, was one of the after-dinner speakers; Dr. H. B. Cason, Warrenton, read a paper, "Digitalis in Pneumonia"; Dr. W. R. Houston, Augusta, "Irritability of Digestive Tract"; Dr. R. H. Chaney, Augusta, "Peripheral Nerve Injuries"; Dr. Joseph Akerman, Augusta, "Birth Injuries to the Cerebro-Spinal Nervous System".

The Ninth District Medical Society met at Gainesville on March 16th. Dr. Arthur G. Fort, Atlanta, President of the Association, spoke on "Medical Organization".

The Tri-County Medical Society met at the office of Dr. J. S. Beard, Edison, on March 9th.

The American Proctologic Society announces that its thirty-third annual meeting will be held in Memphis, Tenn., May 6-7. Hotel Peabody will be headquarters. For additional information and a copy of the program, address Dr. Curtice Rosser, Secretary, 710 Medical Arts Building, Dallas, Texas.

The Spalding County Medical Society met at the R. F. Strickland & Son Memorial Hospital, Griffin, on March 15th.

The Lowndes County Medical Society met at the Valdes Hotel, Valdosta, on March 15th.

The Walker County Medical Society held its regular monthly meeting at Chickamauga on March 25th. The following titles of papers were on the scientific program: "Cardiac Diagnosis with X-Ray", Drs. C. E. Homan and Franklin Bogart, both of Chattanooga, Tenn.; "Organized Medicine", Dr. Dunbar Newell, Chattanooga, Tenn.; Dr. M. W. Spearman, Chickamauga, reported three cases of "Undulant Fever". The next meeting will be held at LaFayette, April 29th.

The Randolph County Medical Society met at the Woman's Clubroom of Cuthbert on April 7th. Dr. Steve P. Kenyon, Dawson, read a paper entitled "The Treatment of Syphilis by the General Practitioner".

Any member of the Association interested in Group Insurance may secure an application blank with information by addressing Mr. Arthur S. McCalmont, 307 Cotton States Building, Nashville, Tenn.

Dr. Allan W. Rowe, Boston, spoke on "The Differential Diagnosis of Endocrine Disorders" at the Academy of Medicine, Atlanta, on April 1st, under the auspices of the Good Samaritan Clinic.

The dedication exercises of the New Combined Laboratories of Clinical Pathology at Grady Hospital, Atlanta, were held at the institution on Friday, April 1st, 10:00 a.m. The program consisted of "Presentation of the Laboratory", J. B. Franklin, Superintendent; "Dedication of the Laboratory", Dr. R. H. Oppenheimer, Dean of Emory University School of Medicine; "Ideals in Laboratory Work", Dr. Roy R. Kracke, Chairman, Department of Pathology, Emory University School of Medicine; "Reception of the Laboratories" and a brief outline of the future program of laboratory work, Dr. Jack C. Norris, Pathologist, Grady Hospital.

Emory Medical Alumni Clinic Week will be held, June 6th to 10th, inclusive. Monday, June 6th, will be alumni day and will be devoted to class reunions, clinics, reminiscences and past associations. Dinner will be served on the campus at 1:00 p.m. Doctor Cox, President of Emory University, will hold a reception in the Theological Building at 8:00 p.m. The clinics from Tuesday through Friday will be at Grady Hospital, Butler Street, Atlanta. Officers of the Emory Medical Alumni Association are Dr. C. W. Strickler, Atlanta, President; Dr. John D. Johnston, Brundidge,

Ala., First Vice-President; Dr. W. O. Shepard, Bluffton, Second Vice-President; Dr. Marion C. Pruitt, Atlanta, Secretary-Treasurer. The Program Committee consists of Dr. W. E. Person, Chairman; Dr. J. P. Bowdoin, Dr. Dan C. Elkin, Dr. T. C. Davison, Dr. Howard Hailey. Entertainment Committee: Dr. Hal M. Davison, Chairman; Dr. John Fitts, Dr. Ed Greene, Dr. Trimble Johnson. Publicity Committee: Dr. Allen H. Bunce, Chairman; Dr. J. P. Bowdoin, Dr. Marion C. Pruitt. Auditing Committee: Dr. J. L. Campbell, Chairman; Dr. J. D. Martin, Dr. F. M. Atkins.

The Georgia Conference on Social Work held its seventh annual session at the Biltmore Hotel, Atlanta, on April 4, 5, 6, 7.

The Fulton County Medical Society met at the Academy of Medicine, Atlanta, on April 7th. The scientific program consisted of the following: "Primary Phlebitis of Both Legs—Case Report," Dr. J. A. Combs, Atlanta; "A Case Showing the Tolerance of Long Bones to Foreign Bodies," Dr. W. S. Goldsmith, Atlanta; Clinical talk, "Headaches and Neuralgia—Their Relation to Meckel's Ganglion," Dr. Guy D. Ayer, Atlanta; paper on "Acute Appendicitis in Atlanta," Dr. Frank K. Boland, Atlanta. Discussions were led by Dr. Allen H. Bunce, Dr. W. Frank Wells, and Dr. H. H. Askew, all of Atlanta.

The Atlanta Eye, Ear, Nose, and Throat Society has been organized. The following officers were elected: Dr. L. C. Rouglin, Atlanta, President; Dr. Zach W. Jackson, Atlanta, Vice-President; Dr. Wm. O. Martin, Jr., Atlanta, Secretary-Treasurer.

The Crawford W. Long Memorial Hospital, Atlanta, published the Anniversary Number of its Bulletin on March 30th. Titles of papers were: "Crawford W. Long Memorial Hospital", Dr. L. C. Fischer, Atlanta; "The Relief of Prostatic Obstruction by Electrical Resection Through the Cystoscope", E. G. Ballenger, O. F. Elder, and H. P. McDonald, all of Atlanta; "Vegetal Tracheobronchitis—Case Reports", Dr. Calhoun McDonald and Dr. E. S. Wright, both of Atlanta; "'Crawford W. Long' Day in Georgia", Dr. Frank K. Boland, Atlanta.

The Second District Medical Society met at the John D. Archbold Memorial Hospital, Thomasville, April 8th. Titles of papers on the scientific program were as follows: "The value of Routine Examinations of the Ears", Dr. J. I. Palmer, Thomasville; "Conservative Treatment of Maxillary Antrum Infection", Dr. A. S. Bacon, Albany; "Some Phases of Induced Benign Antrum Infection", Dr. Mark F. Boyd, Director, Florida Station for Malaria Research, Tallahassee, Fla.; "Appendicitis and Some of Its Complications", Dr. Gordon Chason, Bainbridge.

The Eleventh District Medical Society met at Brunswick, April 12th. The scientific program consisted of the following titles of papers: "Treatment of Pneumonia," Dr. J. B. Avera, Brunswick; "Endarteri-

tis Obliterans", Dr. John W. Simmons, Brunswick; "Some of the Diseases and Treatment of the Maxillary Sinus," Dr. W. D. Mixson, Waycross; "Consideration of the Various Pathological Conditions to Which the Prostate Is Heir, Together with Treatment," Dr. Earl Floyd and Dr. J. L. Pittman, both of Atlanta; "Urology in General Practice," Dr. L. W. Pierce, Brunswick; "Ectopic Pregnancy," Dr. J. T. Colvin and Dr. T. G. Ritch, both of Jesup; "Some Observations Regarding Breast Tumors," Dr. R. L. Johnson, Waycross. Dinner was served at the Sea Island Yacht Club.

The New Orleans session of the American Medical Association will be held May 9th to 13th, inclusive. Many of the leaders in the various branches of medicine and surgery from different sections of the United States will be there. The educational value of the scientific exhibits and program will be equal to a great deal of study and perhaps postgraduate work. With the meetings at New Orleans, it is an exceptional opportunity for the members of Georgia to attend.

Dr. L. Minor Blackford, Atlanta, read a paper before the Greenville County Medical Society of South Carolina on April 4th, entitled, "Cardiovascular Syphilis;" Dr. V. P. Sydenstricker, Augusta, "Pulmonary Endocarditis—Case Report."

OBITUARY

Dr. LaFayette A. Carter, Nashville; University of Nashville Medical Department, Nashville, Tenn. 1886; aged 73; died at his winter home at Boynton, Fla. on Feb. 29, 1932. He was born in Echols county. Dr. Carter practiced medicine in Berrien and adjoining counties for more than forty years. He was not only one of the most prominent physicians of South Georgia but was an excellent surgeon. It has been claimed that he performed the second successful operation for appendicitis in the State. During his long and successful career as a practitioner, he was a leading citizen and philanthropist. Funeral services were conducted from the Methodist church by Rev. H. E. Stipe, Pastor of the Methodist church; assisted by Rev. A. H. Giddens, Pastor of the Baptist church, and Elder J. B. Luke, Pastor of the Primitive Baptist church. Surviving him are his widow, two daughters, Mrs. Jessamond McLaughlin, Jesup; Mrs. Cloy Clark, Nashville; and one son, Dr. Earl Carter, Ft. Lauderdale, Fla.

Dr. William L. Des Portes, Columbus; Columbia University College of Physicians and Surgeons, 1894; aged 62; died at his home on March 26, 1932. He was born and reared at Ridgeway, South Carolina. Dr. Des Portes was surgeon for the Central of Georgia Railroad for many years. He served the people in his professional capacity for more than thirty years. Through his skill and delightful personality he possessed a large circle of devoted friends. Surviving him are his widow, two sons, Richard S. and Calvin J. Des Portes. Funeral services were conducted from the residence by Rev. G. C. Hinshlewood and interment was in Linwood cemetery.

SAVANNAH* PLACES OF INTEREST

(Continued from the March Number)

52. Shrine Club (D-6).
 53. Mickve Israel Synagogue (D-6).
 54. Oglethorpe Club (D-6)—Men's club.
 55. Wesley Monumental Methodist Church (C-6).
 56. Warren G. Candler Memorial Hospital (C-7).
 57. Confederate Memorial Hall (U. C. V.) (C-7)—Home and Headquarters.
 58. Pape School for Girls (C-7).
 59. Telfair Hospital (D-8)—For Women and Children only.
 60. Chatham Artillery (D-8)—Oldest military company in consecutive active service in U. S. Cannon captured Yorktown, presented by Geo. Washington.
 61. Lawton Memorial (D-8)—In memory of General, Alexander R. Lawton and Daughter.
 62. Benedictine School (D-8)—For boys.
 63. 35th Junior High School (D-8).
 64. Abrahams Home (A-2)—For old and infirm women.
 65. S. A. L. Rwy. Offices (C-2).
 66. A. C. L. Rwy. Offices (A-5).
 67. Savannah Cotton Exchange (C-1).
 68. Citizens & Southern Company (C-1).
 69. Postal Telegraph Co. (D-1).
 70. Western Union Telegraph Co. (D-1).
 71. U. S. Marine Hospital (C-2).
 72. Savannah Fire Department Headquarters (C-3).
 73. Academy of St. Vincent de Paul (C-5).
 74. Cathedral of St. John the Baptist (C-5).
 75. Sou. Bell Telephone & Telegraph Co. (C-5)—Offices and Exchange.
 76. St. Joseph's Hospital (B-6).
 77. Little Sisters of the Poor (C-8).
 78. Savannah Morning News (E-1).
 79. Savannah Press (E-2)—Afternoon paper.
 80. City Market (E-2)—Has occupied present site since 1763—Present building erected 1870-72.
 81. Knights of Pythias (E-3)—Club rooms.
 82. Y. W. C. A. (E-3)—Club rooms, gym, pool, lunch room, residence for business women.
 83. Trinity Methodist Church—Oldest church in Georgia.
 84. Jewish Educational Alliance (E-5)—Jewish Alliance, club rooms, gym.
 85. Greek Orthodox Church (E-8).
 86. Central of Georgia (F-4)—General Offices.
 87. Central of Georgia (F-4)—Passenger Station.
 88. Union Station (F-4)—S. A. L. Rwy., A. C. L. Rwy., Southern Rwy., Savannah & Statesboro.
 89. Savannah Police Headquarters (B-3).
- Libraries*
90. Down Town Branch Library (E-1)—Morning News Building.

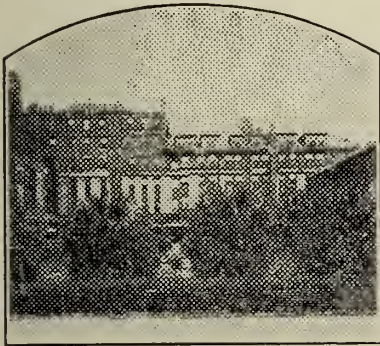
*Charts describing key numbers may be secured by writing to the Tourist and Convention Bureau, Chamber of Commerce, Savannah.



Air plane View of Savannah



Victory Drive to Savannah Beach



Hotel De Soto, Savannah



View of Business Section of Savannah



Savannah Beach, Tybee Island

99. Arcadia (C-2)—Moving pictures.
100. Savannah Theatre (D-4)—Moving pictures and vaudeville. Oldest theatre in active use in U. S.
101. Municipal Auditorium (E-4)—Convention Hall, seating 3,000. Ample and various committee rooms. Opera and musical headquarters.

BRITISH MEDICAL JOURNAL CENTENNIAL ANNIVERSARY

Those of our readers who have access to the British Medical Journal will be increasingly interested in the plans that are being made for the Centennial Anniversary Meeting of that body in July. Many distinguished names from all over the world, and especially from the British Empire, appear on the program. The American Medical Association has asked Dr. George H. Simmons, for many years its Executive Secretary, to act as its official representative at the London meeting. There will be a large display of both scientific and commercial exhibits. The Canadian Medical Association is holding its annual session this year in London as a part of the British Centennial meeting.

91. Hodgson Hall and Georgia Historical Society (E-7).
92. Savannah Public Library (D-8).
93. Carnegie Library (A-8)—For colored people.
94. Telfair Academy of Arts and Science (E-2)—One of the finest in the country.

Theatres

95. Town Theatre (B-1)—Local talent; professional director; open to visitors three months, renewal privileges.
96. Lucas Theatre (C-2)—Moving pictures.
97. Odeon Theatre (C-2)—Moving pictures.
98. Bijou (C-2)—Moving pictures and vaudeville.

All of which lends added interest to the Co-operative Clinic Tours already announced through this journal. Since these tours are scheduled for the fastest and most popular ships in the world, the "Bremen" and "Europa" of the North German Lloyd, there is every good reason for making reservations as far in advance as possible. We hope that Georgia will be represented at the meeting.

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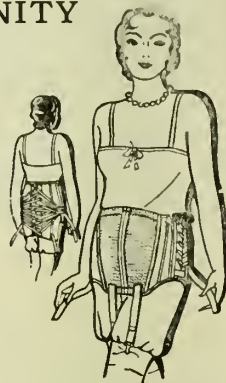
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THE JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA

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Number 5

THE ECONOMIC DRIFT OF MODERN MEDICINE*

ARTHUR G. FORT, M.D.
Atlanta

To the Medical Association of Georgia:

As is our custom, we are gathered on this particular day and at this specific hour to talk with each other about affairs of interest and, on this occasion, about affairs pressing for a solution. To me, it is quite fitting that this meeting should be in Savannah; the cradle of medicine in Georgia and from this cradle has grown one of the strongest units of our organization. A university can have all of the endowments in the world and the best faculty in existence but unless it has a background and traditions, it lacks its most precious possessions. This background is here and our hosts, the Georgia Medical Society, needs make no excuse for its past, its present, nor, judging from its personnel, its future. I, particularly, am proud of it and the profession of the state is proud of it. Would that we could linger here and get our inspiration from the mellowed culture of the past and present but it is not possible.

Safely through another year, and it a most disastrous one, God has brought us on our way. The lessons taught by the times are worthwhile if we learn them and apply them. When conditions were different and money easy we did not consider the drift of things—we were satisfied, pleased, because there was no special necessity of doing anything except drift. Relations between doctors have been most cordial. The re-organization of the Medical Association, together with the ease with which we earned a livelihood have had much to do with this relationship. Now,

that things are changed, may we still continue our cordiality and friendly fellowship. We must now, in view of the various attacks and suits, remain closely allied and stand or fall together. We must recognize the encroachments from outside and face affairs as they are and not as we wish they were.

Eighty-three years ago this Association was formed. Its basis, the fundamental principles, were and are primarily the advancement of medicine as an art and science. Our position as physicians from the economic side, has largely been lost sight of, although, it is mentioned in our Constitution.

This program, as presented by your Scientific Committee, would do justice to any medical organization but its value is that of science; the betterment of society and the happiness of a people from the knowledge gained and the principles of this knowledge applied.

The study of our State Board of Health and the basic principles back of all health work is an inspiration. How, fifty years ago, Koch discovered the cause of tuberculosis—how, about thirty-three years ago, yellow fever was controlled—how diphtheria has been attacked—how typhoid is now prevented and numerous other matters of equal importance have made our knowledge and our profession indispensable to our cities, counties, states, nation and to the world. Prior to the accumulation of scientific facts, we were simply a part of the body politic and accepted as necessary evils to take care of the sick and injured so that responsibility could be shifted from the shoulders of others on to ours. With actual knowledge gained we gradually have been accepted as essential elements, not longer as necessary evils, but as indispensable factors. To the wind with the cults; if they are right and their teachings true they will survive and we will fade away,

*Presidential address before the Medical Association of Georgia, Savannah, Ga., May 19, 1932.

but who of you need fear them. "Truth crushed to earth will rise again," etc.

Under the old regime we were envious of each other and would give and take only what was offered to us. This became a habit and like the oath of Hippocrates, hangs to us yet. Every little community had its two physicians with their clientele. The good wishes of their patrons was their greatest asset, as they had little to offer. Now, things have changed and we have something definite to offer, but are still hampered by the relics of the past. Governments from city to nation, philanthropic organizations and churches valued us before we did ourselves. They have taken advantage of the barnacles attached to us in the past to still utilize us for their good and aggrandizement to our own undoing.

Recently, we have heard a great deal about "The High Cost of Medical Care." What commodity, if you might call what we give by that term, has advanced in value as has the service we render? This attack is based only on a relative basis—past and present. There are many factors to be considered here. Do you realize that of the 955,869 hospital beds in the continental U. S. A. that 63.8 per cent or 609,844 are Federal, State and city, and practically free to the patient? Do you realize that every veteran of any war is provided free hospital service and treatment for any condition? Do you realize that every employee of the postal service is provided with the same—if in line of duty—so on—Army, Navy, all Congressmen and Senators?

Big businesses are not asleep and they, too, make provision for their employees. It is true that all of the above referred-to organizations use doctors and some pay them. To my viewpoint, I, as a citizen of this country who works, earns and helps to make possible the existence and maintenance of this government of ours, am just as much entitled to all these benefits as anyone else. I have no fault to find with my state or government for providing every essential service to those mentioned, if it is wise to do so but, in all fairness, it should, at the same time, provide it for everyone. Then State medicine and all will be allowed the same privileges. If this

comes, there will be those joining in this work and those who operate independently, forming two competitive groups and the one which does its work best will survive.

Contract practice and state medicine, as it now applies to the privileged class only, employs physicians and pays something for the service rendered. If this is good enough for our congressmen and senators, it should, at least, satisfy others and if they claim it for themselves, why not extend it to those who make their political existence possible? I am not particularly criticizing "the powers that be" for what they are doing, but am for what they are not doing. Either give to all or none. If they must compensate those who valiantly served in time of war let it extend to those who also served at home. So much for that. We wish to mention clinics and hospitals run by philanthropic organizations, cities and churches—some pay and some free. A church with paid leaders wishes to extend its influence—some wealthy individual or group wishes to build a memorial or some city desires to take care of its charity, builds a hospital and opens a clinic. It provides a superintendent, a clerical force and a nursing force. No clinic is a clinic without the physician, no hospital can be of service without physicians; yet, their staffs are formed and who ever heard of one of these philanthropic institutions paying doctors for services rendered. You are no more called on to render this service than is anyone else.

Between 375,000 and 500,000 people in America are treated free each day by the doctors of the United States or approximately at \$2.00 each, \$365,000,000 given per annum. I doubt that that sum is contributed by all the medical foundations, etc., in twenty years. Why should the church, city and other philanthropic organizations take the attitude that the indigent sick are the doctors' ward?

In reply to a letter written to Dr. Olin West, Secretary of the A. M. A., in which this question was asked, "What, in your opinion, is the one great thing facing the physicians today?" he stated that the one most pressing question for the doctors to solve is how to give to rich and poor alike,

adequate medical service at a cost within their means. This is the challenge given us.

Dr. W. S. Rankin, of the Duke Endowment Foundation, thinks that the proper distribution of hospitals is the one great question. This will largely solve the problem in his mind.

The "Committee on the Cost of Medical Care" has as yet offered no solution. This committee has some wonderful men on it. Men for whom I have the greatest respect but no more than two who actually know the ins and outs of country practice nor the actual problems of the rural doctor. We await, with interest, the suggestions and recommendations they will make based on the evidence submitted by many competent investigators.

The answer to Doctor West is, it is not a question of high cost of medical care but a question of the proper distribution of this cost.

When cities, states, nations and charitable organizations continuously offer free treatment to millions they do so at the expense of not only the physician but, also, of those able to pay. If they realize we have something to sell and not give away, at least a part of the problem would be solved. By proper distribution of hospitals partly, at least, taken care of by taxation and where each patient either pays his own way or same is provided for from charitable donations or by units of the government, the question of the costs would be eliminated.

The city, county, state, nation and all philanthropic bodies can and will pay for what they want unless they can get it for nothing. If we continue to, day after day, give our services then we will constantly be pauperized and unable to assert ourselves. No less than a distinguished gentleman on an important committee in our State made the statement that health matters were political and that the State Board of Health's function was primarily to apply facts and that it could be done by practically anyone. With this view held by so many, is it a wonder that our activities are becoming more and more political footballs?

Many other schemes for taking care of the

sick have been tried and I mention some of them for your information. Clubs are formed and each member pays a fee by the month. Those with which I am most familiar have a fee of \$2.00 per month. This provides medical and hospital care and club facilities. One of these clubs, so I am told, has 80,000 members, another 60,000 and still another 40,000. The physicians are paid salaries. That certainly takes care of the high cost to the individual. Another scheme is insurance and it is estimated that a premium from \$15.00 to \$30.00 per annum is adequate. This is being tried in one of our states. Pardon me for lingering here to discuss "insurance", as to my mind, this is what we will ultimately face and be forced to accept unless we embrace it. It is already here. The Compensation laws of Georgia place the burden of insurance on every individual or corporation who employs ten or more. About 98 per cent of all cases falling under this law can be and are taken care of with the \$100.00 limit. The remaining two per cent are partly taken care of by the hospitals and physicians. Social workers are largely responsible for agitating health insurance and business groups will take it up when it is ripe. Strange to say, no country where it has been in force has ever dropped it. In times of depression, it has been forced on other countries as a social political move started by Bismarck in 1883 to gain the support of the Social Democrats. It is considered a palliative measure against social revolt. Our economic condition, at present, is ripe for just such a move. Bills providing it are before many states now. Are we ready to control it or will insurance companies, social workers, or politicians handle it for us? Another is the county pays a fee for each indigent patient. This should reduce the cost to all but strange as it may sound, this is in the one state you hear most of the high cost. Another scheme is the members of a medical society incorporate and contract with the county on a salary basis to care for the indigent poor and use the funds for the advancement of the society or distributes it among its members. A county in Georgia contracted with its physicians to inoculate all citizens against small-

pox, typhoid-fever and diphtheria. It worked out nicely. These plans are all working and distribute the expense.

These facts are presented to give you an idea of the trend of affairs economically in medicine and to impress on the profession the necessity of thorough organization so that whatever solution is deemed best we can and will be able to control it.

Here, let me say, our Woman's Auxiliary is a vital factor. We must become more or less political-minded and be able to exert an influence to be reckoned with, or added to those who now use us as they desire, will be the politicians.

What solution is there to this perplexing problem? Our State reorganizes its Department of Public Health. Who acts for them? A committee of four and without consultation with our organized group. Why did they dare to do this? Because they saw a valuable institution which they could use for political purposes and they did not believe we were sufficiently organized to make our strength felt and that we were in the habit of being told what to do.

We have entirely too many medical organizations. This divides our interest and our loyalty. You must realize that for us to prevent further encroachment, and I fear it is too late, we must choose sane leaders and follow them as a unit with all the combined influence of our county, district, state and national organizations together with our Auxiliary and do not be afraid to give of your time and means toward furthering our interests.

Go back to your county and build up the strongest medical unit you can. Control medical activities and give service of such a high standard the cities, counties and other units will be willing to pay for it, then demand that they share with you the expense of same.

My term of service will soon come to a close. It has been a hard year, it has been a costly year, both in funds and time, but the pleasant associations made and renewed have been lovely and will ever be a bright spot in my memory.

I thank you!

815 Doctor's Building.

RITTER'S DISEASE*

Dermatitis Exfoliativa Infantum:
Keratolysis Neonatorum

Case Report

B. C. TEASLEY, M.D.
Hartwell

Ritter's disease is a rare condition of the newborn found most often between the second and fifth week of extra-uterine life but occasionally seen as early as the first week. It is characterized by an intense widespread erythema which sometimes shows a tendency to a vesiculo-bullous formation and is always followed by a marked exfoliation of the epidermis. The disease was first described by Ritter in 1878, when he reported 297 such cases.

The etiology has not been definitely determined. It is discussed from the view of faulty hygiene, improper feeding, hot baths followed by sudden cooling, gastric upsets, vasomotor disturbances, nutritional disorders, eczema and others. However, it seems more likely that it is caused by an organism which causes a generalized skin infection before invading the blood stream. The organism most often found in such cases has been the bacillus pyocyaneus. It has been suggested that it is only another form of pemphigus neonatorum, in which the same organism has been discovered but it seems to be a definite disease. There is a primary infection of the skin after which a pyemia develops and in some cases, the organism has been recovered from the bloodstream of the patient.

The skin is the seat of the pathology. There is a marked hyperkeratosis and an acanthosis within and without the cells. Often the skin of the entire body is raised by a bleb formation. There is a dilatation and engorgement of the smaller vessels with edema of the underlying structure and even small hemorrhages in the corium. There are no abnormalities in the skin but distortions may occur. The epithelium can be raised and peeled off with-

*Read before the Eighth District Medical Society, Royston, Ga., August 12, 1931.

out difficulty and a red, angry color is seen beneath it.

Prognosis is grave; the fatalities in the cases reported being fifty per cent. This is possibly due to the inability of the skin to carry out its usual function, the danger of a systemic infection and the difficulty of maintaining nutrition. Occasionally complications arise such as pneumonia, erysipelas, furuncles, eczema and gangrene. These add to the seriousness of the condition.

The onset of the condition is usually abrupt and it appears between the eighth and twenty-sixth day of life. Ordinarily it begins with a hyperemia of the skin of the lower half of the face in the region of the mouth, becoming more intense and spreading over the entire body. There is a marked swelling about the mouth with the formation of fissures about the mouth. The skin becomes thick and edematous forming deep ridges which sometimes prevent opening of the mouth. Large blebs may form over the body lifting the corneal layer and exposing a moist, reddened rete, or the entire trunk may become red, dry and parched with the epithelium detaching itself in large areas. The buccal mucosa may be invaded with the formation of large grayish ulcers. The eyeball may be affected. The temperature remains normal, as a rule, and in some cases may even be subnormal. In favorable cases, the condition continues for about seven to ten days when the epithelium regenerates after desquamation. Those who do not recover show a continuation of the process with larger areas involved. The child rapidly becomes weaker. Probably a blood-stream infection occurs and this in addition to the malnutrition results in the death of the patient.

Differential Diagnosis

Prickly heat usually occurs in the summer time. There are numberless minute reddish papules and vesicles at the sudoriparous glands which appear during or after an unusual amount of perspiration. All this disappears in a few days if the weather conditions are favorable.

Ipetigo contagioso is generally on the hands, scalp and face, but may spread by autoinoculation to other parts of the body,



Dermatitis Exfoliative neonatorum occurring in a child 12 years old who died on the thirteenth day. Photograph after colored plate by von Reuss.

particularly the legs, feet and forearms. It usually starts as small vesicles which generally become larger. The contents are yellowish and seropurulent which dry into yellowish crusts in from two to five days. The crusts seem to be adherent in the center with the edges slightly raised. It is one of the most contagious diseases that we have. All the children who come in contact with a case develop the disease in a few days.

Exudative dermatitis and pemphigus foliaceus are two separate and distinct diseases that are most likely to be confused with Ritter's disease. Ritter says that pemphigus foliaceus is universally fatal and that regeneration of the epithelium does not occur. You will not make a wrong diagnosis if you will remember that Ritter's disease begins in the first five weeks of extrauterine life with fissures at the angles of the mouth and redness

of the skin of the face that rapidly spreads over the entire body with exfoliation of great sheets of the epidermis.

Case Report

After a nine-month gestation, a normal male baby was delivered, labor being normal. The mother had delivered two other children two and three years before, who are living and well.

The infant child was put to the breast and seemed to be progressing nicely. On the seventh day, blisters appeared about the finger nails. No other signs were found. Three days later, examination showed a reddening and thickening of the skin about the mouth with the formation of fissures. The skin was drawn as if it had been burned. It spread rapidly to the entire body. The skin was red, thick, edematous and the epithelium could be separated in large sheets, leaving a red surface underneath as if scalded. The buccal mucosa and the conjunctivae were red and eroded. Temperature was 101.5. The child cried and moved his arms and legs as if in pain, but was nursing and growing satisfactorily. This continued for two weeks and then cleared up only to re-appear. This happened several times over a period of three months. Otherwise, the child seemed to be perfectly normal and healthy as he was growing rapidly. Except for a few rough spots on the abdomen, which are disappearing, there are no signs of the disease.

Several local applications were tried but the only one which seemed to give any relief was the following: Two drams each of starch and oxide of zinc and four drams of white vaseline were mixed and applied locally every three hours. At all times the child was kept on breast milk and water in an effort to combat the dehydration which accompanied the disease.

Summary

1. Ritter's disease is a rare condition.
2. The etiology is not determined but it seems to be of infectious origin and the organism most often found was the bacillus pyocyaneus.
3. It is frequently confused with prickly heat, pemphigus neonatorum, bullous impetigo contagiosa from which it must be differentiated.
4. Prognosis is grave as the death rate is fifty per cent.
5. Lassar's Paste was the drug giving most relief in the above case which recovered after a period of three months.

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PLASTIC OPERATION FOR ANAL INCONTINENCE

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In 1929, Prof. R. R. Wreden, a Russian surgeon, described a new method of restoring anal control and reported one successful case. In the same issue of Archives of Surgery, Harvey Stone, using the principles of the Wreden operation with some modifications, reported one successful case. Since that time, Stone has reported nine additional cases, including one reported by J. R. Ramshoff, one by G. Paul LaRougue, and one by the present writer, which was presented before the last meeting of the Southern Surgical Association, and is reported here.

The principles of the Wreden-Stone operation are to cause the gluteus maximus muscles to function in place of the paralyzed or injured sphincter ani. This is made possible by harnessing the gluteus maximus of each side to the anus. This is brought about by the use of strips of fascia, which are threaded around the anus subcutaneously in such a way as to produce a double purse string effect, the ends of the fascial strips being tied around a bundle of the gluteus maximus of the respective side.

In Stone's first report, he used four small incisions, two in the midline, one anterior, and one posterior to the anus, and one over each gluteus maximus. These four incisions were then united subcutaneously by tunneling through by blunt dissection and the fascial strips, either taken from the fascia lata or prepared strips of Koontz, were threaded around the anus and tied into bundles of the gluteus maximus. With this technique there was a large per cent of infections, supposedly due to the incisions being made in the median line. In his second series of five cases, his technique was changed to one long incision to each side of the anus, through which he was able to thread the fascial strips around the anus and also expose the gluteus maximi. With this technique the percentage of infection was greatly reduced. The technique used by me differed slightly from



FIGURE 1.
Child morning of operation. Spinabifida scar is plainly seen.



FIGURE 2.
Fascia lata is exposed preparatory to taking fascial strips.



FIGURE 3.
Two incisions lateral to the anus and one exposing each gluteus maximus has been made and fascial strips are being threaded through subcutaneously from either side.



FIGURE 4.
Strips have been threaded about the anus, tied and sutured in a bundle of gluteus maximus on each side and three of the wounds closed. The wound over the right gluteus maximus is spread to show the fascial strips tied around a bundle of muscle preparatory to the wound being closed.

either of the ones described by him, in that we used four small incisions, one on each side of the anus and one to expose each gluteus maximus. We thought the small incisions would open up less area for infection and by placing them lateral to the anus we avoided the secretion which probably contaminated the two median incisions first described by Stone.

Case Report

A child six years of age was admitted to Henrietta

Egleston Memorial Hospital, who had had a spinabifida repaired in infancy. A careful neurologic study showed his nervous mechanism entirely intact, except for complete paralysis of both bladder and anal sphincters. On December 1, 1930, under gas-ether anesthesia, he was operated. Two fascial strips approximately 18 cms. long and 2 cms. wide taken from the fascia lata, were threaded about the anus and anchored to a bundle of gluteus maximus of each side. The wound healed without infection, and he was allowed out of bed the twelfth post-operative day. The child has been observed from time to time since, and there has been a steady improvement in anal con-

trol. He was presented to the Fulton County Medical Society a few months ago, and at that time had very good control, except when he had been given laxatives, or when his diet was not carefully supervised. Since that time he has gained additional control, and he has recently been allowed to enter school.

As would be expected, the success of this operation depends largely upon the ability of the patient to educate the gluteus maximi to assume the additional duty of the sphincter ani. This, of course, takes some time, and in the successful cases reported, improvement has been progressive over a number of months. The results in the case reported here have been exceptionally brilliant, because the operation was undertaken in a child only six years of age, who presented special difficulties in the matter of educating him to use his gluteus maximi. In older patients co-operation should be better and improvement should be more immediate.

The only difficult part of the operation is being able to do it without infection and with the lateral incisions this seems to be possible in the majority of cases. It has occurred to me that a temporary colostomy to put the anus at rest might be an added precaution against infection. In the event there should be infection, there is no reason why a subsequent attempt might not be made. We also have the assurance that a permanent colostomy can be resorted to at any time.

In cases with permanent anal incontinence, due either to nerve injury or to muscle injury (operative accidents) there is every reason why this operation should be seriously considered before a permanent colostomy is resorted to.

TUBERCULOSIS OF BONES AND JOINTS: VALUE OF HELIOTHERAPY AND SURGERY AS METHODS OF TREATMENT

Asa M. Lehman and Don C. Bartholomew, Denver (*Jour. A. M. A.*, April 16, 1932), have found heliotherapy to be of the greatest value in the treatment of tuberculous spines and hips, but for some unknown reason it is ineffective in involvement of the knee joint. They consider that bony ankylosis is the proper criterion of arrested disease in adults and probably in children. Fusion operations are valuable adjuncts in the treatment and should be employed in well-chosen cases of tuberculous spine and in all cases of tuberculosis of the knee. The authors' results in tuberculous hips have been so pleasing that they will try operative measures only in carefully chosen cases, with the hope that the recovery time may be shortened. The most frequent and fatal complication of tuberculous joints is sinus formation with secondary infection, and all treatment must be planned to avoid, if possible, the formation of sinuses. The death rate falls to an almost negligible figure if sinuses are not present, and after they develop they become of more clinical importance than the original bony lesion.

SURGERY IN DIABETES*

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The purpose of this paper is to bring to the attention of the profession some of the latest conceptions of Surgery in Diabetes Mellitus in a short and concise form. It is neither intended to leave the impression that the writer knows all about Diabetic Surgery, nor has his practice been sufficient to give to you all that this paper contains. The major portion of this paper has been gleaned from the latest literature on the subject, and the minor portion from the writer's own experience. The paper expresses an effort to bring to date the salient points in Diabetic Surgery. It does not propose to treat on diabetes in general.

It has been estimated that over a million people are suffering from diabetes in the United States, and this disease causes approximately one death in every fifty occurring in New York City and Boston. It is significant that from 10 to 15 per cent of all diabetics who enter large hospitals are admitted for surgical complications of one type or another.

The usual classification of Diabetic Surgery is:

- A. Surgical diseases which do not come about as a result of pre-existing diabetes, and,
- B. Surgical complications due to the diabetic condition.

I think a better classification is:

- A. Emergency surgery in diabetes.
- B. General surgery in diabetes in which there is time to prepare the patient for operation.
- C. Surgery for cure of diabetes.

The more significant point is not whether the condition of a part is due to diabetes, but whether we can wait long enough to bring the patient to a more safe condition for operation. We will find by examination that the patient has diabetes, and if possible, bring him to a safer condition for operation. A patient with a dry gangrene with a large quantity of sugar, acetone and diacetic acid may be brought to a more favorable condi-

*Read before the Eighth District Medical Society, Royston, Ga., August 12, 1931.

tion for surgery. On the other hand, a patient having a wet gangrene and cellulitis must be operated upon immediately. This is even more reasonable in non-emergency cases.

While preparation of any non-diabetic patient for an operation is important, the preparation of a diabetic patient cannot be too strongly emphasized. More fluids, more food and especially carbohydrates must be stored, the latter with the aid of insulin.

Any operation is more or less of a shock to the patient, and more so to a diabetic, for his margin of safety from acidosis is more narrow. Most non-diabetics show sugar in their urine after operation, due to both the pancreas failing to produce enough insulin and to the inability of the liver to store glycogen. Glucose is not available to the organism as food until acted upon by insulin. This new "glucose" is food and keeps the metabolism of the body in balance. Fats, whether of exogenous or endogenous origin, must have carbohydrates that have been acted upon by insulin or they will produce ketones and acids that are not neutralized by alkalis. In fact, the administration of alkali to a diabetic patient just before operation is dangerous because of setting free the ketones that are bound to other substances. These ketones irritate the kidneys and as the excess of alkali is excreted leave the constant forming ketones free to produce acidosis.

Different authorities disagree as to whether a moderate amount of sugar in the urine retards the healing of tissues following operation, but it is known that the accumulation of diacetic acid and ketones retards or prohibits the recovery of the diabetic.

Then, given a patient with diabetes in whom surgery is indicated, but no necessity for immediate operation one should give a more liberal diet of all foods and especially carbohydrate foods, covering the latter with insulin to the point of maintaining a normal blood-sugar and the urine free of acetone and abnormal acids. The patient should not be starved the day before the operation as was once the custom, but allowed his full diet. Starving draws upon his storehouse of food that has been produced and tends toward acidosis.

On the other hand, given a patient in which there is indication for immediate operation, a blood-sugar and urinalysis for sugar, acetone and diacetic acid should be made, remembering that sugar in moderate amounts in excess in the blood or urine does not rank in importance with acetone or abnormal acids in the urine. These latter substances must be removed if possible before operation. To remove acetone, the diacetic and B-Oxybuturic acids from the urine 5 to 10 per cent glucose in normal saline may be given slowly, intravenously, not to exceed 500 c.c. preceded by insulin subcutaneously. If larger infusions are given than this cardiac complications may occur. Insulin given intravenously does not combine or change the glucose quickly enough. Too many insulin reactions have been caused by intravenous injection of the hormone. The intravenous injection has therefore been discontinued. The usual calculation of one unit for each two or three grams of glucose will not suffice in infected cases, for the presence of the infection seems to neutralize the insulin. On the other hand, one should not lose sight of the fact that insulin is a powerful agent and that most embarrassing results at unexpected times will sooner or later certainly attend its injudicious use. It is better to give too small a dose than to err to the other extreme.

Synthaline and myrtillin have not proven of the same value in surgical diabetes as in medical diabetes.

Spinal anesthesia is the choice of anesthetics when it can be used. Local anesthesia follows, then ethylene and nitrous oxide, but the last produces cyanosis with attendant acidosis and should be avoided if possible. Ether and chloroform are the worst among the common anesthetics.

The operation should be as quickly performed as possible and as diabetic flesh is so susceptible to infection, all tissues must be handled most gently. No tourniquets are allowed.

The post-operative care of diabetic patients requires the most careful supervision. They should be placed in the care of a watchful and competent nurse and every effort made to anticipate wants and avoid undue exertion.

Fluids may well be resumed, by rectum or intravenously, immediately after the operation and before it is possible to give anything by mouth. The solutions of choice are normal saline and five or ten per cent glucose. The onset of post-operative acidosis is often extremely insidious. For a period of at least forty-eight hours the urine should be carefully tested for sugar and acetone bodies. Blood-sugar examinations are extremely useful. During the first twenty-four hours after operation the urine should be tested at least once every three or four hours, urine being obtained by catheterization if necessary. If large amounts of sugar or particularly of acetone bodies are present, fifteen to twenty units of insulin may be given, and less if the tests indicate that less acidosis is present. The amounts of fluid to be given per twenty-four hours will vary with the weight and condition of the patient. He should receive at least one liter of fluid per twenty-four hours to each fifteen kilos of body weight during the critical post-operative period. Fluids should never be given by mouth so long as much nausea exists. Every effort must be directed to prevent vomiting, which is very harmful.

It cannot be over-emphasized that glycosuria following operations upon diabetics does not call for curtailment of the carbohydrate of the diet, because it is the rule, not the exception. Food and fluids by mouth should be resumed as soon as possible. One should return gradually to the patient's regular diabetic dietary but may usually commence after forty-eight hours with a gram of protein and a gram of carbohydrates per kilogram of body weight, together with sufficient fat to yield fifteen to twenty calories per kilogram. The fat in the diet should be resumed last and may well be withheld for several days if acidosis persists. Patients with diabetes usually require a longer and more carefully regulated convalescence after surgical operations than do those who are not thus handicapped. Glycosuria and most certainly acidosis should be completely eliminated, except under most exceptional circumstances, before they are allowed out of bed. On the other hand, the need of the elderly patient for mild exercise to stimulate the cir-

ulation and general body tone, and to assist in overcoming the constipation so common in these patients, must be duly borne in mind. When exercise is impossible over considerable periods, as after major abdominal operations, the possibilities of massage of the extremities, passive movements, and light and heat treatment should be carefully tested. If one excepts the comparatively small number of extremely severe diabetics, it is probably wise to give not less than 100 grams of carbohydrates to all of the others in the daily diet.

Recently operations for the cure or betterment of young, well selected diabetic patients have been performed. The underlying principal is that when the acinar tissue of the pancreas is allowed to atrophy, the islands of Langerhan hypertrophy and thereby increase the amount of insulin available to the organism. Many successful operations have been performed on dogs by ligating the tail of the pancreas. After two to four months these animals have shown a higher sugar tolerance, but after two years this increased tolerance has diminished to the original status.

Recently several operations have been performed upon well selected, young diabetics with success. Not sufficient time has elapsed since the operations have been performed upon these young adults to show whether this procedure will be of lasting benefit. Cases recorded who were operated upon in 1929 still show marked improvement and are doing well.

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TONGUE PRINTS ON SMOKED PAPER

San Francisco.—How tongue prints on smoked paper show the course of certain diseases was explained by Dr. William S. Middleton, Associate Professor of Medicine at the University of Wisconsin Medical School, at a recent meeting here of the American College of Physicians.—*Victor News*, Chicago, May, 1932.

Miss Jane Van De Vrede, R. N., Atlanta, was elected First Vice-President of the American Nurses Association at its final business session held at San Antonio, Texas, April 11-15.

POLYCYSTIC KIDNEY DISEASE*

Report of a Familial Series

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Polycystic disease of the kidney is said to be the most important congenital anomaly of the genito-urinary organs and occurs with an incidence of approximately 0.4 per cent in large series of autopsies reported by various authors. Nauman¹ found sixteen cases in 10,-177 autopsies while Sanders and Hartman² failed to find a single case when performing autopsies upon 100 selected cases known to have diseased kidneys.

There is no limited age incidence. Miller³ reported finding large polycystic kidneys in a fetus which produced a marked degree of dystocia. Sieber⁴ collected 244 cases from the literature and found the greatest age incidence to be between forty and sixty. He found two cases reported in which the patients were over eighty years old. The hereditary tendency of the disease is well known. Cummings⁵ reported a familial history in 36 per cent of his series of thirty-one cases. The condition occurs bilaterally ten times more frequently than it does unilaterally. Davis⁶ has recently shown that in unilateral cases or where one kidney appears grossly normal, microscopic examination of the grossly normal kidney will show cystic formation. This unilateral development of the disease has never been satisfactorily explained.

The etiology is unknown. Many theories have been offered but have failed to satisfy the known pathological conditions found by microscopical examination of autopsied material. Probably the two most popular theories at the present time are those of Davis and Hildebrandt. Davis⁷ believes that human polycystic kidney results from partial cessation of development at the mesonephric stage. He compares it to the kidney of the codfish which is normally mesonephric and polycystic when fully developed. Hildebrandt⁸ claims that the polycystic condition is due to

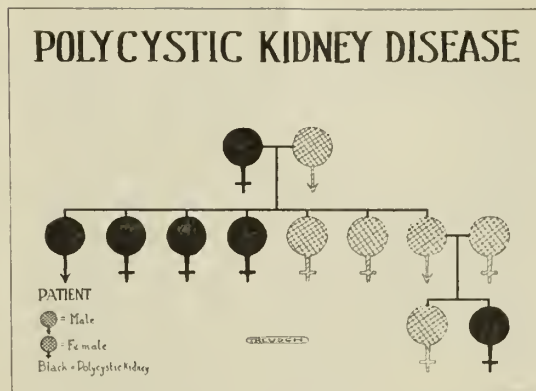


FIGURE 1
Hereditary chart showing the disease in members of three generations.

a failure of the cortex to unite with the medulla.

Inspection of the gross pathological specimen shows a very irregular surface produced by the cysts of all sizes and many colors. The different colors are due to the difference in thickness of the cyst walls, the individual depth of the cysts and the type of fluid contained within. Cummings⁵ claims that all of these cysts contain pus and blood. Braasch⁹ reported hemorrhage in forty per cent of the cases seen at the Mayo Clinic. The cysts are found all through the kidney structure, being most abundant in the cortical and sub-cortical areas. Microscopic sections show a complete cystic degeneration with consequent pressure atrophy of all kidney units. There is also defective development and apparently premature aging of the kidney structures.

The clinical course of the disease has been divided into three stages by Davis. In the first stage there is enlargement of one or both kidneys without subjective symptoms. In the second stage there are subjective symptoms and objective signs. This stage may vary from several months to several years and the main symptoms appear during this stage. They are pain, hematuria, pyuria, and the clinical symptoms of nephritis and cystitis, such as headache, nausea, cold sweats, dizziness, asthenia, dysuria, polyuria, and loss of weight. The pain is sharp in character and is usually constant, although a case is reported by Litzner¹⁰ in which the patient was free from pain for six years following his first attack. The chief objective sign is a

*Read before the Chattahoochee Valley Medical and Surgical Association at its Thirtieth Annual Session, Albany, Ga., July 8, 1930.



FIGURE 2
Pyelogram of right kidney showing elongated and dilated calyces. (Courtesy Dr. Earl Floyd.)

palpable, nodular tumor mass which rises and falls with respiration. Other variable signs are hypertension, cardiac dilatation, lowered renal function, pyelographic changes, and the urinary findings of a chronic interstitial nephritis or an acute hemorrhagic nephritis. The third stage of the disease is the uremic stage which makes its appearance after renal function has become very poor due to a return of the kidney function for a short time, but anuria eventually results.

Polycystic disease of the kidney should be differentiated from hypernephroma, chronic interstitial nephritis, acute hemorrhagic nephritis, nephroptosis with pyelitis, solitary cysts of the kidney and renal tuberculosis. The diagnosis of polycystic disease is usually made from the family history and the clinical findings with the aid of cystoscopy and pyelography. The usual characteristic pyelogram of polycystic disease shows irregularity, narrowing or obliteration of the calices with lengthening of the kidney pelvis and a change in its axis. The pelvis is never widely dilated as in hydronephroma but tapers gradually toward the ureter.



FIGURE 3
Ventral view of right kidney showing gross aspect of surface cysts.

The treatment is merely medical management for all cases except the rare one with unilateral involvement. When there is reason to believe that the other kidney is but slightly involved, removal of the polycystic kidney may be done although some authors claim that this hastens the degeneration of the remaining kidney. An operation has been devised for evacuation of the contents of the cysts but this is to be condemned as impractical except in the exceptional case. The medical treatment should consist of limitation of exercise, a maintenance protein diet, caution against excess in the use of tobacco and alcohol, plenty of sleep, two daily movements of the bowels and a suitable urinary antiseptic. Lavage and drainage may be used when hemorrhage or infection of the kidney takes place but the benefit derived is only temporary.

Report of Case

History.—An American farmer, forty-five years of age, complained of general weakness and difficulty in walking for the past year. One month after the onset of his illness he began to experience a dull pain in the right lumbar region, which radiated into the right hip and down the outside of the thigh. The pain was not augmented by damp weather, but was soon accompanied by stiffness of both hip joints. The pain would disappear for as long as five days only to return with such severity that he was forced to go to bed and take large doses of aspirin which afforded some relief. He finally consulted a physician who advised roentgen-ray examination of his teeth. Multiple apical abscesses were discovered and the teeth removed, but his condition failed to improve. He was compelled to walk with the aid of a cane. The weakness and stiffness in his hips became more pronounced during the next three months, but the pain was no worse. During the past year he had gained two pounds.

His father, aged seventy-two, died of nephritis and



Figure 4

Microscopic section of cortex showing cystic degeneration and dilatation of tubules which contain colloid.

his mother died at the age of sixty-eight with a nodular mass in the right side of the abdomen. One sister, aged thirty-seven, suffered a headache for ten days and died in uremic coma. Another sister, forty-four years old, discovered a mass in the right side and was operated upon in 1924. Both kidneys were found to contain multiple cysts and the patient is still living. Another sister, aged forty-two, is living and her family physician writes that she has polycystic kidneys. Two sisters, aged forty and thirty-five, are living but have no signs nor symptoms of kidney disease. A niece died three years ago and the diagnosis of the attending physician was polycystic kidney disease. (Fig. 1). The patient has been married twice and by his first wife had one child who is living and well.

The patient suffered pneumonia when a boy, influenza in 1918, and had a herniotomy in 1923. Following this operation it was necessary to catheterize him. He had gonorrhea when a young man, but was apparently well in a few weeks. Three years ago he passed cloudy urine for a while but it cleared up without treatment and he has not noticed any since. His sexual function has been impaired for the past eight months.

Physical Examination.—The patient was a tall, well developed, but poorly nourished man, weighing 135 pounds, who walked with a rocking motion. His pupils were irregular and unequal, but reacted to light and distance. The heart rate was eighty-eight per minute but his heart was not enlarged and there were no murmurs. His blood pressure was 130/105. The lungs were normal. His abdomen was moderately distended and there was slight rigidity on both sides. A large, firm, nodular mass was palpable on the right side, which almost filled the abdomen. There was slight tenderness about the mass. His inguinal glands were enlarged. His reflexes were normal. He had no fever and no edema.

Laboratory Studies.—A complete blood count was

normal. The Wassermann test was negative. Urinalysis showed a trace of albumin and many pus cells with a tendency toward fixation of the specific gravity around 1010. Smears made from prostatic fluid after massage of the prostate showed extracellular and intracellular Gram negative diplococci. A blood chemistry examination showed the urea nitrogen to be 37 mgms., the creatinine 4.8 mgms. and the blood sugar 150 mgms. for 100 cc. of blood. The roentgenological study of the gastrointestinal tract showed the descending portion of the duodenum displaced toward the left and the transverse colon displaced downward. Roentgenological study of the lungs proved negative.

Urological Consultation.—The cystoscopic examination showed the bladder to be normal. Catheterization of the ureters and the intravenous injection of dye showed the output from the left kidney to be only a trace while the function of the right kidney was six per cent in fifteen minutes. Microscopical examination of the urine from the right kidney showed only a few pus cells. After the injection of 30 cc. of fifteen per cent sodium iodide into the pelvis of the right kidney, a pyelogram was taken which showed a greatly enlarged kidney with an elongated pelvis which was only slightly dilated (Fig. 2). The calyces were elongated and dilated with a tendency toward clubbing. The ureter was pushed in and the upper portion extended over the vertebral column. The diagnosis of the consultant was polycystic kidney disease.

Course of Disease.—With medical care the patient improved so that in one month he gained six pounds and complained so about his twenty-gram protein diet that he was given a forty-gram protein diet. For the next two months he did well but during the next five months lost the six pounds which he had gained. He became weak and pale and was admitted to the Georgia Baptist Hospital for re-examination. His temperature was 97 degrees, his pulse was 100 and his blood pressure was 160/120. The leukocyte count was 16,300, the erythrocyte count was 2,740,000 and the hemoglobin was 55 per cent. The blood sugar was 125 mgms., the non-protein nitrogen was 66 mgms., the urea nitrogen 32 mgms., and the creatinine 4.2 mgms. per 100 cc. of blood. A renal function test was performed but no dye appeared two hours and ten minutes after injection and even four hours after injection no dye was demonstrable. The patient died thirteen months after the diagnosis was established.

Necropsy.—Only a limited necropsy was permitted. This was performed six hours after death. The body was covered with small superficial excoriations and there was slight edema of the face and legs. The peritoneal cavity was opened and the right kidney was found to extend almost to the brim of the pelvis. It was removed with difficulty due to the numerous dense adhesions. The left kidney was found to be enlarged, elongated and flattened in the abdominal cavity. It measured 22x11x8 cm. and weighed 1440 grams. The right kidney measured 19x13x9 cm. and weighed 1440 grams (Fig. 3). Both kidneys were nodular, polycystic and multicolored.

Microscopic Examination.—The cysts varied in size from one millimeter to four centimeters in diameter. Between the cysts were found a few normal glomeruli and tubules. Fibrous tissue was abundant between the normal tissue and the cysts and had apparently choked many of the glomeruli and tubules. Most of the cysts contained a white gelatinous fluid while some contained pus and blood.

Summary

A case of polycystic disease of the kidneys is reported in which the clinical symptoms existed for two years before death, which occurred thirteen months after the diagnosis was established. There was no hematuria and hypertension appeared late in the disease. There was a history of the disease in three generations of the family. Two members of the family known to have the disease are still living.

[I wish to thank Dr. W. D. Spearman, Dr. Earl Floyd, and Mr. H. L. Rowe for aid in preparing this report.]

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PATCH TEST AND ELEMENT OF SYRINGE CONTAMINATION IN ARSPHENAMINE SENSITIZATION DERMATITIS

Arthur G. Schoch, Dallas, Texas (*Jour. A. M. A.*, April 16, 1932). has selected the patch test as the only practical method of testing for cutaneous arsphenamine hypersensitiveness. He reports eight cases of arsphenamine dermatitis with results of the patch test. Four patients gave strongly positive patch tests and three of the four gave demonstrable evidence of subsequent cutaneous intolerance to arsphenamine. Four cases showed negative patch tests, and in all four cases an arsphenamine was subsequently tolerated without recurrence of an arsphenamine dermatitis. The attempt to desensitize two patients by injection of minute amounts of sulpharsphenamine bismuth was unsuccessful. Experimental evidence is submitted to support the assumption that the recurrence of an arsphenamine dermatitis in two patients was due to the accidental introduction of arsphenamine into the muscle. Minute amounts of sulpharsphenamine bismuth were probably present in the syringes or needles cleaned simply by rinsing and boiling at the time these two patients received intramuscular injections of bismuth.

CHRONIC PURULENT OTITIS MEDIA*

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Macon

Chronic middle ear suppuration is the result of an unhealed or recurring otitis media. Let us first consider the underlying factors which tend towards chronicity in this condition.

The chronicity may be due to the severity of the original infection as in cases of scarlet fever or scarlet diphtheria where the greater portion of the drum head may slough out and the mucous membrane become necrotic, leaving areas of denuded bone. The damage to the ear in such cases is irreparable and there is persistent purulent discharge.

One factor is the presence of adenoid vegetation in the naso-pharynx which cause continual reinfection of the tympanic cavity through the tube. The fact that the patient has had a previous adenoidectomy does not rule out this possibility for unless the proper technique is employed it is extremely easy to leave adenoid remnants particularly about the orifices of the Eustachian tubes.

Another factor is the presence of infection in any of the nasal accessory sinuses which tend to prolong a middle ear infection. To a lesser extent simple nasal obstruction from hypertrophied turbinates or a marked deviation of the nasal septum are predisposing causes.

Last, and yet of paramount importance is a factor which I think is frequently overlooked. In the presence of an acute otitis media which, under proper treatment, does not clear up over a period of three or four weeks, in many cases we are dealing with a frank mastoid. The infection has spread back into the antrum and mastoid cells. Antiseptic fluids rarely reach the affected areas in such cases.

Pathological Changes

In mild cases the mucous membrane is thickened and fibrous. In more advanced cases the bone may show signs of caries in certain areas. The mucous membrane over

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such an area is generally hyperplastic or granulomatous. A granulation may be so large as to protrude through the perforation in the drum and enlarge in the meatus. It is then known as an aural polyp. In most cases of long duration the drum head has been absorbed and caries of portions of the ossicles have taken place.

In certain cases, the epithelium of the outer surface of the drum head may grow in through a perforation into a cavity filled with granulations and pus. The skin becomes soaked with pus and desquamates freely and continuously. The result is the formation of an onion-like mass of material called cholesteatoma. The tendency of the mass is to grow in layers causing slow erosion of the bone as it advances. Thus a fistula may be produced in the horizontal semicircular canal. Likewise the erosion of bone may lay bare the dura over the roof of the tympanum or the lateral sinus posterior to it with grave results.

Symptoms

A foul smelling purulent discharge from the ear which may be continuous or intermittent is the main symptom. White, flaky material of a peculiar cheesy odor in the pus indicates the presence of cholesteatoma.

Pain is not the rule, but when present is an indication of insufficient drainage. Actual temporal headache or a sense of fullness on the side affected is often encountered. It is interesting to note that in many of these cases with the above symptoms operation reveals varying areas of pathologically exposed dura.

Dizziness is not infrequently complained of. This may indicate insufficient drainage, but is usually evidence of some labyrinthine disturbance. Deafness is usually present but may vary considerably. This depends upon the site of damage in the middle ear. Thus, with little change around the stapes and round window hearing may be fairly good, although the drum head is practically gone. Finally, a facial palsy in the presence of a chronic purulent ear may indicate erosion of the diseased process into the facial canal.

Diagnosis

The type of discharge from the ear is

rather significant. If of a foul smelling nature we are inclined to believe it denotes bone necrosis of serious import. The presence of white flaky material of a peculiar cheesy odor in the pus indicates cholesteatoma. This may be confirmed by the finding of cholestrin crystals in the aural smear. On the other hand, if there is little or no odor to the discharge we are probably dealing with a chronic catarrhal affair with which we can temporize.

The otoscopic picture may vary from a small pin hole perforation to complete absence of the drum-head. When the perforation is very large the whole of the promontory may be visible as well as the stapes and round window.

The location of the perforation is of some clinical significance. Thus an anterior perforation is generally associated with a chronic tubal catarrh, a posterosuperior one with suppurative and possibly cholesteatoma in the antrum and mastoid cavity.

Deafness is generally of the middle ear or sound conducting type. Readings at regular intervals with the audiometer are valuable as to the status of hearing. X-ray of the mastoid is a very valuable guide in this condition. With the better X-ray technique we can definitely say whether we are dealing with a sclerotic infantile type of mastoid or a highly developed pneumatic one. This information is very important as to the line of treatment we should follow.

Prognosis

Any patient with chronic middle ear suppuration is potentially in danger of his life; in addition we may expect in most cases a decrease in hearing acuity in proportion to the length of discharge. One may go around with an ear discharge for years without other symptoms but there is always the possibility of a sudden flare up accompanied by symptoms of one or more intra-cranial complications.

Most life insurance companies consider individuals with chronic middle ear suppuration as poor risks, and either do not care to accept them or only at higher rates.

Treatment

Middle ear suppuration which exists for

more than three to six weeks is usually classified as chronic.

First, impaired physical resistance general or local, must be dealt with in the treatment of aural suppuration. Very important is the removal of tonsils and adenoids, particularly adenoids. In the face of a previous adenoidectomy, careful inspection and palpation should be made to see if any adenoid remnants remain about the Eustachian orifices as this is frequently the offending cause.

In several of the large out patient clinics of New York Eye and Ear Infirmary and Manhattan Ear, Nose and Throat Hospital, all chronic middle ear cases are subjected to a tonsillectomy and adenoidectomy routinely before any other treatment is pursued.

Likewise, removal of any infection in the nasal accessory sinuses either by treatment or otherwise is helpful, in many instances repeated lavage of an antrum tends to bring about the cessation of the discharge. To a lesser extent removal of any nasal obstruction is indicated.

At present, as in the past, there is argument as to the merits of the so-called "dry" and "wet" methods of treatment of suppurating ears. In general, American opinion upholds the virtue of irrigation with normal saline or boric solutions used at 100 degrees to 115 degrees F. in cases (especially children) with copious discharge. On the other hand, in cases with slight discharge dehydrating agents, such as alcohol 70 to 95 per cent, with or without the addition of finely powdered boric acid is an agent of high repute. Aristol has also been used with alcohol.

However, antiseptic treatment of aural discharges varies considerably with the type of suppuration and the chronicity of its course.

X-rays of the mastoid are important, particularly in the early stages of chronic suppuration. If after appropriate treatment the discharge is no better and the mastoid is of the cellular pneumatic type, the antrum and mastoid cells are involved and mastoidectomy is indicated. In cases without pain the public are not prone to accept that we are dealing with mastoid infection. After a series of several hundred cases of this border line type seen at New York Eye and Ear Infirmary, I

feel that we get better results both as regards hearing and a dry ear if mastoidectomy is performed. My operative findings have borne out this conclusion also.

Now, I will pass on to the far advanced cases of chronic middle ear suppuration, say of several years' duration. This forms one of the hardest problems an otologist has to face. The infection has become deep seated and treatment is of no avail.

The difference in normal structure of the average temporal bone means wide variation in the degree of bone destruction encountered in different mastoids and make it necessary to employ more than one type of operation for the relief of chronic mastoiditis.

The operative procedure employed should first remove the danger and conserve as much of the normal tissues and hearing as possible. There are at least three mastoid operations which may be advantageously employed in chronic mastoiditis. These I will mention and state briefly their selective indications.

1. The complete simple mastoid operation. This is most conservative and generally should be given a trial before one of the more radical procedures. It is most effective in the early cases of chronic middle ear suppuration, especially if the mastoid is of the cellular type. It is especially indicated in young children and a dry ear is the rule with preservation of useful hearing.

2. The modified radical operation. Of this type may be mentioned the Blackwell and Smith modified radical operations which have as their object the preservation of valuable hearing and to avoid the complete radical operation. This can with the proper selective use be employed in fully three-fourths of the cases upon which a radical operation had been performed in the past.

3. The complete radical operation. An extensive destruction of bone, a suspected or definite evidence of an intra-cranial extension of the infection will require a complete radical operation. Cholesteatoma previously mentioned, due to its tendency to recur and the grave consequences attendant upon its presence is best eradicated by the complete radical mastoid operation.

In many instances, the absence of symp-

toms other than the foul smelling discharge makes it impossible to determine the extent of necrosis prior to operation. The best policy would seem to be to allow the degree of bone destruction in the individual case to dictate the type of operation and be able to perform the one that seems to promise the best results.

CESAREAN SECTION*

Case Reports

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When to interfere and what methods to use in dystocia is one of the most difficult problems that we have to face today. Delivery by cesarean section dates back to antiquity, but, like other major surgical procedures, it did not gain any degree of popularity until asepsis and hemostasis reduced the mortality rate to reasonable proportions. Although time-honored, there is still considerable controversy regarding the indications for this operation. It is usually agreed that a conjugate vera of less than 6 cm. makes an operation imperative. Section has been both practiced and condemned for practically every other obstetrical abnormality.

In our own experience, we have chosen this method of delivery seven times. The operations were performed on a total of five individuals. Four times, (representing two women) the conjugate vera was estimated to be less than 6 cm. once, the conjugate vera was estimated 8.5 cm. and trial labor had failed. An eclamptic in whom efforts to induce labor had failed was our sixth case, and the last was operated at death in an effort to get a living baby.

All the patients came from that walk in life which holds pre-natal care lightly, so all of the operations were more or less in the nature of emergencies. We had one maternal and one fetal death in the series. Ether was used five times for anaesthesia. In one case a local anaesthetic was used. In all case, a classical cesarean section was performed. Theoretically

we should have selected one of the "lower uterine segment" operations on at least three occasions; practically, it would not have improved our results.

Report of Cases

Case 1.—A negro girl, aged 14, had been in labor thirty-six hours. She was a primipara and the membranes had been ruptured twelve hours, but the head was not engaged. The conjugate vera was 5.5 cm. and the fetal heart sounds and movements were elicited. Cesarean section was performed and a living baby delivered. The mother made an uneventful recovery.

Case 2.—A mulatto girl, aged 20, a typical case of chondrocystrophy, was admitted to the hospital at term. She had been in labor twelve hours and had been having convulsions six hours. The fetal head was free above the symphysis pubis, the mother's temperature was 101 degrees and her pulse 140 a minute. The conjugate vera was estimated to be 4.5 cm. No fetal heart sounds were heard. Cesarean section was done at once, but the fetus was dead. The mother went into severe shock but responded to treatment and was able to go home two weeks later in good condition.

Case 3.—The same patient reported as case one was admitted to the hospital two years later having become pregnant again. She had been in labor two hours and was almost blind. Her blood pressure was 180/96 and her urine contained a large amount of albumen. A preliminary hypodermic injection of morphine was administered and a cesarean section performed, novocain infiltration anesthesia being used. A living child was delivered and at the end of a week the mother was able to go home, her vision being improved.

Case 4.—The same patient mentioned as case two was readmitted to the hospital eighteen months after her first delivery. She had been in labor one hour when cesarean section was accomplished. A living baby was delivered and she made an uneventful convalescence.

Case 5.—A white primipara, aged 24, was admitted to the hospital after having been in labor forty-eight hours. The position was occiput anterior, the head was at the brim of the pelvis and the conjugate vera was 8.5 cm. A living child was delivered by cesarean section, but the mother was very uncomfortable for several days post partum. She finally improved and was discharged at home on the twelfth post-operative day.

Case 6.—A large white multipara was admitted to the hospital with the history of suffering eclampsia three years ago. She had been having headaches and visual disturbances for two weeks and had been nauseated for the past two days. Her blood pressure was 190/110 and the urine contained albumen and acetone. She was given a cathartic and a diet of milk and glucose lemonade. For a day she improved but then

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the headache and nausea returned. Efforts to induce labor failed and cesarean section was done and a living, three and one-half pound baby was delivered. The age of the baby was estimated at seven months. Following the operation the mother had three convulsions and died on the following day.

Case 7.—A colored multipara, aged 35, was admitted to the hospital unconscious, estimated to be at term. She was said to have had "spells" two hours before admission. Morphine was given and a colon irrigation ordered to be followed by chloral hydrate and sodium bromide by rectum. Chloroform was given during convulsions. A small amount of urine, obtained by catheterization, showed four plus albumen. Glucose was given subcutaneously but she failed to respond to treatment and twelve hours after admission she was dying. Cesarean section was done at once, but both baby and mother died.

PAROXYSMAL VENTRICULAR TACHYCARDIA*

A Case Treated with Quinidine Sulphate

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Paroxysmal ventricular tachycardia has been of increased interest since it has been possible to diagnose the condition clinically. The first case was described in 1909 by Lewis¹. Robinson and Herrmann² in 1918 reviewed sixteen cases and Wolferth and Mc-Millan³ were able to collect twenty-four in 1923.

Previous reports show that this alarming arrhythmia occurs under varied conditions. Smith⁴, Levine and Fulton⁵, Gilchrist⁶, and others have called attention to the occurrence of ventricular tachycardia following digitalis administration and Strauss⁷ in a recent review of 65 cases noted that this drug had been given previous to the onset of the arrhythmia in 60 per cent of the cases. He also observed the frequent association of cardiovascular and coronary disease with ventricular tachycardia, a fact stressed by Levine and Fulton. Auricular fibrillation preceded the development of this arrhythmia in 24 of the 65 cases now recorded. Gilchrist mentioned the possibility of nicotine poisoning being causative in a doubtful instance and several cases have been reported in which

there were no demonstrable evidences of cardiac disease⁸.

Robinson and Herrmann first described the electro-cardiographic findings which they thought were characteristic of this condition. Rapid ventricular waves occur independently of the slower auricular waves and the ventricular complexes are abnormal, indicating that the tachycardia arises in the ventricles. During the intervals between attacks abnormal ventricular complexes similar to those occurring during the paroxysms are frequently noted.

Since electrocardiographic study is not always available, some cases would pass unrecognized except for certain characteristics described by Levine and Fulton which serve to distinguish tachycardia of ventricular origin from other types. These characteristics are: "First, the rhythm is rapid and is essentially regular, but slight irregularities can be detected. Second, the quality of the first heart sound varies in intensity in some of the cycles. Third, attempts at vagal or ocular pressure prove ineffective in slowing the tachycardia."

The following case is illustrative of these points:

Report of Case

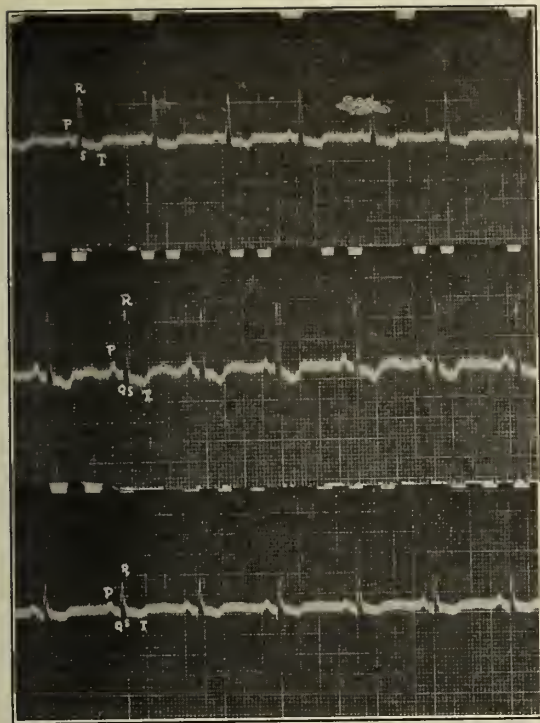
A man, aged 56, first came under observation on July 14, 1922. He complained of attacks of precordial pain radiating into the left arm. These attacks appeared on exertion, were accompanied by dyspnea and had been occurring for the previous five weeks.

On examination it was found that the heart was of normal size and there were no murmurs. The aortic second sound was accentuated. The temperature was 99 degrees and the pulse rate was 96. Moist rales were heard over the bases of both lungs and the liver was palpable two fingers' breadth below the costal margin. There was slight pretibial edema.

The patient was digitalized and during the course of the next few days, the decompensation was relieved. He then disappeared from observation until March 10, 1930. At that time he had been practically confined to bed since August, 1929, because of dyspnea and pain in the precordium on the slightest exertion. For the past four months this had been associated with attacks of palpitation, lasting from a few minutes to an hour. At the onset he had taken ten drops of tincture of digitalis three times daily, which had not improved his condition. Finally, the digitalis had been increased to thirty drops every four hours and continued in this dosage rather constantly with no effect on the paroxysms of tachycardia.

Examination at this time showed that he had auricular fibrillation with no evident decomposition. The

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Electrocardiogram taken April 15, 1930. The S-T interval is below the iso-electric line, particularly in Leads I and II, which is indicative of coronary disease. The inversion of the T-waves in all three leads makes the prognosis grave. The Q R S complex is somewhat slurred in all leads.

ocular fundi showed marked arteriosclerosis. The examination revealed nothing else of importance.

The digitalis was reduced to ten drops three times daily, but the attacks of tachycardia continued. On March 15, he was seized with a violent attack accompanied by dyspnea. Vagal and ocular pressure and morphine had no effect on the paroxysm. The pulse rate varied from 160 to 180 and was essentially regular, but occasional irregularities were noted. There was variation in intensity in the first heart sounds. A clinical diagnosis of ventricular tachycardia was made. The following day the patient was given 2 grains of quinidine sulphate every 4 hours. This was increased after 12 hours to 4 grains every 4 hours. There was a gradual drop in the pulse rate and on March 17, it was regular. The rate was 68. The quinidine was then continued in 4 grain doses three times daily.

An electrocardiogram, taken on April 15, showed an inverted T-wave in all leads. The S-T intervals, particularly in leads T and III, was negative, suggesting coronary disease. With reduction in the maintenance dose of quinidine, extra systoles invariably appeared, these ceasing after the dose was increased to the former level.

When this patient was last seen on June 13, the heart was still regular and he had been taking short walks daily without discomfort.

Discussion

The remarkable effect of quinidine in abolishing paroxysmal ventricular tachy-

cardia is demonstrated by this case. Levine and Fulton⁵ believe its effectiveness in this condition is even more specific than in auricular fibrillation. They conclude that this selective action of quinidine indicates that the mechanism of ventricular tachycardia is in the nature of a circus movement as occurs in auricular fibrillation and flutter. As ventricular fibrillation not uncommonly follows tachycardia of ventricular origin the dose of quinidine should be increased rapidly. In this case 2 grains of quinidine was given every four hours and increased after twelve hours to 4 grains every four hours. The gravity of the condition justifies whatever risk there may be in large doses. After relief of the tachycardia a maintenance dose of 12 grains daily was continued. When this was reduced the appearance of extra systoles indicated that the dose was too small.

This case presents the three conditions most commonly associated with ventricular tachycardia; namely, digitalis therapy, coronary disease, and auricular fibrillation.

It is hardly to be questioned that digitalis was instrumental in producing the tachycardia in this instance, especially, in view of the history of the use of large doses. The mechanism by which this occurs has been attributed to increased susceptibility of some patients to digitalis; probably because of myocardial exhaustion or faulty elimination of the drug⁶.

Coronary disease has been described by all investigators as the most common cardiac lesion associated with this arrhythmia. An electrocardiogram taken following the attack in this case showed T wave inversion which according to Nathanson⁷ is present in 88 per cent of the cases of coronary sclerosis.

Summary

1. A case of paroxysmal ventricular tachycardia associated with digitalis administration, coronary disease and auricular fibrillation is reported. 2. The arrhythmia was abolished by quinidine and a return of the tachycardia prevented by regulation of a maintenance dose.

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SURGICAL TREATMENT OF PULMONARY TUBERCULOSIS

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Tuberculosis is an infectious disease caused by bacillus tuberculosis, the lesions of which are characterized by nodular bodies, tubercles and diffuse infiltrations, which either undergo caseation, necrosis and ulceration or heal with sclerosis and calcification¹.

The description of the symptoms of the consumptive dates from Hippocrates. Galen first recognized its contagious nature. Richard Morton in 1689 wrote the first modern treatise on the subject of tuberculosis in which the clinical side of the disease was well considered. Real knowledge of the disease is a nineteenth century contribution beginning with the work of Bayle on the structure of the tubercle and on its identity in the widely distributed lesions. The contagiousness of the disease, a belief in which had all along been held by individuals, was emphasized and confirmed by the brilliant work of Villemin, who first placed the infectious nature of the disease on a solid experimental basis. Robert Koch, in 1882 first demonstrated the bacillus tuberculosis.

Bunyan called tuberculosis the "Captain of Death" and it is estimated that one-eighth of all deaths are due to it.

Osler² specifies three clinical groups of pulmonary tuberculosis:

1. Acute pneumonic tuberculosis.
2. Chronic ulcerative tuberculosis.
3. Fibroid tuberculosis.

In the acute pneumonic type, which includes the miliary, the majority of the pa-

tients die within three months after a sudden onset.

Chronic ulcerative type constitutes the great majority of cases of pulmonary tuberculosis. I believe, in selected cases of this group, surgery, particularly phrenicectomy is of benefit. It is in this type that the primary lesion is usually in the apex about an inch below the summit of the lung. It is an accepted principle of medicine that in any inflammatory condition when the part is put at rest healing takes place more readily than when the part is active. Therefore it seems logical that when a lung with chronic ulcerative tuberculosis is put at rest, the possibility of healing is increased.

The chronic fibroid type is at times found in patients of good general resistance and when this condition is present surgery, particularly thoracoplasty, should be considered.

Modern treatment of pulmonary tuberculosis consists of rest in bed, good nourishing food, fresh air and sunshine. If this general treatment is faithfully carried out, in the majority of cases progressive improvement is noted. But some patients, treated from the earliest onset of symptoms, fail to improve. Also in a large proportion of cases the diagnosis is not made until the disease has become extensive and cavities have formed. Surgery has proven of benefit in certain of these cases which have not improved under careful sanatorium regime.

The object of all forms and types of surgical treatment of pulmonary tuberculosis is to collapse the lung in whole or in part. The two surgical procedures most commonly advocated in pulmonary tuberculosis are:

1. Phrenicectomy.
2. Thoracoplasty.

What is accomplished by pulmonary collapse? Primarily three things are accomplished by pulmonary collapse. 1. The diseased lung is put at rest. This is probably the greatest good derived from any form of surgery done in pulmonary tuberculosis. Expansion of the affected side is reduced and thus excursion of the diseased lung is notably decreased or completely inhibited.

2. The collapse of the lung necessitates the collapse of the cavities therein with con-

sequent diminution of sputum, cough, and toxemia.

3. Lung collapse, by lessening the amount of sputum, lessens the danger of infection of others.

Some men notably Schiffbauer³, Honan⁴, and Hedblom⁵ advocate pulmonary collapse for recurrent hemorrhages. Honan further advocates collapse because healing of the major pulmonary lesion by this means promotes the healing of minor tuberculous lesions elsewhere.

Many physicians now prefer a partial collapse of the lung in unilateral pulmonary lesions by diaphragmatic paralysis on the involved side, namely phrenicectomy, to collapse by pneumothorax. Reasons for this preference are that complications from well performed operations on the phrenic nerve are fewer than those which occur with artificial pneumothorax and that a single minor operation under local anesthesia takes the place of repeated refills with air.

Phrenicectomy is a procedure in which the phrenic nerve is sectioned or evulsed. It was first introduced by Stuertz in 1911. In 1924 Sauerbruch reported seventeen cases of phrenicectomy with improvement. Since this time numerous men, including O'Brien⁶, Frant and Miller⁷, and others have reported series of these cases.

The phrenic nerve, which innervates the diaphragm, is derived from the fourth cervical nerve, reinforced by roots from the third and also the fifth cervical nerves. It runs downward in the neck upon the anterior scalene muscle. At the root of the neck it passes between the subclavian artery and vein, enters the thorax and transverses the mediastinum to reach the diaphragm, lying in the middle mediastinum between the pericardium and pleura and anterior to the root of the lung⁸. Because of this course in the neck, an operation to section the nerve is a comparatively simple one. An incision 4 cm. in length is made in a transverse direction 2 cm. above the clavicle. The incision extends from the sternocleidomastoid muscle outward. This muscle is retracted inward. A pad of fat is thus exposed. By careful dissection through this layer of fat the anterior scalene muscle

is reached. Hemorrhage must be avoided because it obscures the identification of the nerve. The nerve is found as it courses downward on the anterior scalene muscle. It is sectioned and the distal end is caught in a hemostadt and gradually twisted. By this means 10 to 15 cm. of the nerve are evulsed. The wound is closed by interrupted silk sutures.

Clinicians vary somewhat as to the indications of phrenicectomy in case of pulmonary tuberculosis. Practically all agree that it is indicated in basal tuberculosis. Also most men who have done a sufficient amount of work in this branch of surgery advocate the operation in unilateral tuberculosis for small, thin walled cavities in the apex, for a collapse of the cavity is frequently obtained by this procedure alone. Likewise it is generally agreed that phrenicectomy is the operation of choice as a preliminary to a widespread thoracoplasty to be done later. Schiffbauer³ advocates the procedure in cases of repeated hemorrhages from cavities. Practically all agree that phrenicectomy should be done in cases where pneumothorax has been repeatedly tried but a successful collapse has not been accomplished. Frant and Miller⁷ state that phrenicectomy is the operation of choice in those individuals who, by reason of temperament or lack of normal intelligence are unable to bring themselves to undergo routine sanatorium treatment and the prolonged fight and self-denial necessary for recovery. In my opinion this indication is one worthy of especial note for all clinicians have patients of this type and by partial collapse, accomplished by phrenicectomy, the result is at least helpful. The negro would probably benefit appreciably if the procedure were carried out under this indication.

To quote statistics of the results of various series of cases that have had phrenicectomies is beyond the scope of this paper. However, it may be stated that O'Brien⁶ cites results from 500 routine patients that passed through the clinics of the Herman Keifer Hospital at Detroit, Maybury Sanatorium at Northville and the Oakland County Hospital at Pontiac. The following figures are his results and conclusions.

Of the 500 cases 378 patients were operated upon for cavitation. In 191 of these (50.5 per cent) the cavities closed following operation and 31.2 per cent became smaller. Phrenicectomy was not usually satisfactory in large cavities or those with thick walls. In 102 cases the operation was done as a preliminary to thoracoplasty and the cavities in eight of these patients closed, the disease arrested, making thoracoplasty unnecessary. Forty patients had no cavity before operation and phrenicectomy was performed to give added rest to a rather inactive healing, to a healed lesion or for early infiltrative lesions. In this group the lesion proceeded to cavitation in only one patient. That collapse has a deleterious effect on the lesions existing in the contra-lateral lung he disproves with the following figures. In 288 patients there were bi-lateral lesions before operation and in 120 patients the so-called good lung was clear. In 75 cases (26 per cent) the disease in the contra-lateral lung healed completely along with the lesion in the operative side. In 152 patients (52.7 per cent) the lesion in the contra-lateral lung improved. In only 45 patients (10.2 per cent) a spread occurred to the good lung or was there an activation of the disease already existing there.

Thoracoplasty, as the term implies, is a plastic operation on the thorax. The word is used here to designate a resection of a portion of a number of ribs to cause a lung collapse. Usually it designates the resection of from 3 to 8 cm. of each rib from the first through the eleventh, the sections being removed subperiosteally and paravertebrally.

The operation was first proposed by Warren Stone, an American surgeon, but was first done by Eslander, of Helsingfors, in 1879. This method was employed in old cases of empyema in which drainage had failed and in cases with restricted chest walls, collapsed lung, thickened pleura and cavities whose rigid walls would not collapse. The procedure recognized the fact that after pus is evacuated, if the lung is adherent, it cannot expand to fill the space once occupied by the fluid and that the rigid chest wall cannot fall in as a substitute for the lung. It sought to destroy the rigidity of the chest wall and

thus permit it to collapse and obliterate the cavity of the empyema". Many modifications of this original idea have occurred. The type of thoracoplasty most generally used, particularly in pulmonary tuberculosis at the present time, is a modification of the Sauerbruch method.

As is to be expected from its nature the operation is an extensive one and is done in two or more stages in most clinics although Sauerbruch maintains that a one stage operation is an advantage when such a procedure is possible. The anesthesia of choice is procaine 0.5 per cent solution. As much as 200 c.c. of this preparation can be used in one stage without ill effects. The lower five or six ribs are resected in the first stage and the remaining upper ribs in a second and sometimes a third stage. It is essential that the first rib be partially resected if collapse of the apex of the lung is to be obtained. The partial resection of this rib is usually the most difficult part of the entire procedure.

As to the choice of cases in which thoracoplasty is applicable, opinion varies. Decker¹⁰ states that in general collapse therapy is to be considered for all cases which, after conscientious, conservative treatment in a sanatorium, are at a standstill or are losing ground so that the prognosis is bad. He further states that considered from the standpoint of the lesion of the lung, those patients will do best if the pathologic process is of a long standing, slowly progressive fibro-ulcerative type with cavitation and retraction. Schonwald¹¹ believes that thoracoplasty is indicated under one of three conditions, namely:

1. The patient cannot reasonably be expected to recover without surgical intervention.
2. The disease is far advanced and unilateral.
3. Extensive adhesions render impossible the collapse of the lung by pneumothorax or phrenicectomy. Most men, notably Davies, state that the ideal case for thoracoplasty is one of advanced unilateral chronic fibrotic tuberculosis with great thickening and dilatation of the bronchi and bronchioles.

Contra-indications for thoracoplasty are many. All agree that activity of the disease

in the contra-lateral lung is an absolute bar to the operation. Decker¹⁰, Schonwald¹¹ and Davies¹² emphasize this in their writings. Tuberculosis enteritis is a contra-indication in all cases and of course the procedure is not to be considered in patients whose chances of recovery are nil due to emaciation, cachexia, failing heart, diabetes, persistent albuminuria and other intercurrent diseases which make any surgical procedure a dire risk. Schiffbauer¹⁰ believes that thoracoplasty is contra-indicated in two groups:

1. Cases in which constitutional symptoms, manifested by high fever, rapid pulse, dyspnea, cyanosis and low blood pressure, all indicating exhaustion.

2. Early cases which are in the defense stage.

In conclusion, pneumothorax has not been considered in the scope of this paper because this procedure I believe to be more of a medical one than a surgical one. Undoubtedly there are numerous cases of pulmonary tuberculosis in which artificial pneumothorax is not only to be considered but it is the method of choice to obtain a partial collapse of a lung in which tuberculosis is present.

I believe there is a definite place for surgery in the treatment of pulmonary tuberculosis in selected cases. When surgical methods are being considered, the physician and surgeon should co-operate to the fullest extent in the choice of cases adaptable to any surgical procedure. It is also well to remember that phrenicectomy is a much less extensive procedure than thoracoplasty and because of this fact its usefulness is more widespread.

The physician and surgeon must bear in mind the good results that have been obtained by phrenicectomy in three types of cases, namely,

1. Basal tuberculosis.
2. Tuberculosis in which there are small, thin walled cavities.
3. Partial arrest of unilateral pulmonary tuberculosis in the unco-operative consumptive.

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PARA-NASAL SINUS INFECTION*

Lower Respiratory Tract Manifestations

T. S. BURGESS, M.D.

Atlanta

Manifestation of sinus infection in the lower respiratory tract is not primarily a problem of the nose and throat specialist. The responsibility rests mainly upon the man who first sees the case, that is, upon the internist or pediatrician, especially the pediatrician. (Dennis of Colorado Springs states that about half of the cases of bronchiectasis reported originated within the first ten years of life.) I say this because the diagnosis is usually easy; and the treatment simple if begun early in the course of infection, whereas if the true nature of the condition is not suspected till chronic disease has become established in both sinus and chest, much more radical therapy is indicated, and the prognosis much less bright. The main responsibility being the internist's is illustrated in one of the cases to be reported of a woman with progressing symptoms who, in spite of constant medical care, apparently went for many years with a sinus infection that could have been diagnosed with a single x-ray plate, yet no one suggested any examination of the sinuses whatever. This lack of appreciation of the part borne by the sinuses in the syndrome is easily understood, for the symptoms run-

*Read before the Fulton County Medical Society, Atlanta, Ga., Jan. 15, 1931.

ning through the entire group of cases are almost altogether pulmonary in nature, such as cough, lassitude, fever at times, and loss of weight. In the majority of cases the only symptom pointing to sinus infection is nasal discharge, which if posterior is considered to be coughed up from below, and if anterior is lightly dismissed as a "heavy cold".

The one outstanding symptom which is common to all cases, and which attracts the attention of both doctor and patient is coughing. In the sinus cases the cough is usually worse at night and on first arising in the morning. It is very apt to occur in paroxysms. It is generally loose and "croupy" in nature, and productive, though in children any material produced is promptly swallowed. This type of cough is so characteristic of sinus disease that in the absence of other obvious cause it is almost pathognomonic.

There is a sign of sinus infection that is not often mentioned to which I would like to invite attention. That is the odor of the breath. It is hard to describe, but is characteristic. It is fetid, but has not the nauseating odor of bronchiectasis. It resembles somewhat that of diphtheria, but is not so musty. It could probably be placed between that of mild diphtheria, and that of bronchiectasis. It occurs most frequently in quiescent infections of the antrum of long standing.

Sinus disease produces symptoms referable to the chest by means of three mechanisms. An evident method is by direct extension through contiguous mucous membranes. Again, some of the post-nasal secretion may find it's way below the larynx during sleep. Mullin² and Ryder³ demonstrated this experimentally by dropping india ink into the nostrils of rabbits and cats; and later recovering particles of carbon from the lower respiratory tract. More recently Quinn and Meyer⁴ in human beings, both normal and those with bronchiectasis and asthma, fixed nasal catheters into place so that during natural sleep iodized oil could be introduced into the nasopharynx without disturbing the sleeper. In the great majority of cases, fluoroscopic examination the next morning revealed large amounts of the oil in the bronchial tree. The third method of involvement

is by lymphatic absorption and drainage which was also proven experimentally by Mullin. This last method of involvement prevails in the chronic hyperplastic type of infection without free discharge. However, except in the asthmatics, hyperplastic change without suppuration is rare in these chest cases.

While attention is especially directed towards the non-tuberculous patient, nevertheless in those with a diagnosis of tuberculosis, the sinuses should not be overlooked. The tuberculosis patient because of lowered resistance is prone to develop sinus infection just as he is liable to any other infection; and the sinus disease once established has a very debilitating effect. Reisman⁵ called attention to the relation of sinus infection and chest symptoms in children: in many cases referred to the tuberculous clinics with signs almost characteristic of pulmonary tuberculosis, he found sinus disease, and in these cases chest symptomology cleared up rapidly on appropriate treatment.

Buck⁶ studied 2071 cases admitted to the U. S. Veterans Hospital at Whipple, Ariz. He found 316 cases of sinus infection with 236 cases severe enough to require operative interference. He divides these 236 cases into three groups.

Group 1. 110 cases. The diagnosis of tuberculosis was made on the physical and x-ray examination without recovery of the tubercle bacillus from the sputum. All of these cases were operated upon by conservative methods, with excellent results. He says: "Either the diagnosis of tuberculosis was doubtful, or the removal of the focus of infection in the sinuses was the only thing needed to turn the tide of disease and start them on the road to recovery, or at least improvement".

Group II. 80 cases. None of this group was tuberculous; but was suffering from some general condition such as asthma, bronchitis, bronchiectasis, or arthritis. Most of them showed definite improvement with eradication of the sinus disease.

Group III. 40 cases. These were far advanced cases of pulmonary tuberculosis complicated with purulent sinus infection. Con-

servative operative measures relieved the sinus infection and in many cases greatly improved the chest and general condition.

George Terry⁷, studying the etology of otolaryngologic complications occurring in tuberculous patients in the Veterans' Hospital at Oteen, N. C., states: "No sinus except the maxillary was operated upon, and in these the simplest operation possible was done—a resection of the nasoantral wall with subsequent irrigations. In several of these cases the effect on the patient was little short of marvelous". He notes that in only one case was the tubercle bacillus found within the sinus.

I wish to report the following cases:

Case 1.—A 14 year old boy was complaining of a cough of four week's duration. This was worse at night and early in the morning. There was some post-nasal discharge. Clinical examination of the chest was essentially negative. Roentgenographic examination of the sinuses revealed blurring of both antrums, both ethmoid labyrinths, and to a lesser extent of the right frontal. On office treatment, the sinuses cleared up promptly, the cough stopped, and there has been no recurrence.

Case 2.—A 10 year old girl, seen fifteen months ago, complained of cough for six weeks along with a persistent head cold. There was a family history of tuberculosis. Medical diagnosis was subacute bronchitis. X-ray report of chest read, "Appears normal except for increased thickening around hilus glands more marked on left than on right." X-ray of sinuses showed dense blurring of both antrums with slight blurring of ethmoids and frontals. Symptoms cleared up promptly on office treatment of sinuses. Two months later there was a recurrence which subsided promptly on appropriate treatment. There has been no further return of the trouble.

Case 3.—A lady, aged 60, who was seen three years ago, had had a chronic productive cough for three months along with considerable nasal discharge and some frontal headache. Medical diagnosis was subacute bronchitis. X-ray of sinuses showed marked blurring of all the sinuses on the right side, along with some blurring of the left antrum and ethmoids. An autogenous vaccine was made from pus from the right antrum. On vaccine therapy and conservative treatment of the sinuses the nasal discharge cleared up rapidly, and the cough ceased. She remained well for two years, then had a recurrence which responded promptly to similar treatment.

Case 4.—A 12 year old boy had a history of frequently recurring attacks of asthma for several years. X-ray disclosed a densely blurred right antrum. Under ether anesthesia, a large intra-nasal opening was made

into the right antrum on March 11, 1929. Since then he has only a few mild attacks of asthma.

Case 5.—A 32 year old woman stated that as long as she could remember she had had a purulent post-nasal discharge associated with a productive cough. She had been admitted several times to a tuberculosis sanatorium, where a diagnosis of pulmonary tuberculosis had been made; but the tubercle bacillus was never recovered from her sputum. She had had tonsils removed; but she had never had an examination of the sinuses. X-ray diagnosis of chest was chronic tuberculosis with possible bronchiectasis. X-ray diagnosis of sinuses was chronic infection of both antrums and ethmoids. Bilateral operations were performed on the antrums; and thick, fibrous, polypoid membrane was found, indicating an infection of many years' standing. She was given courses of autogenous vaccine. At the present time, although there remains some infection of the ethmoids, which will probably have to be eradicated, there is very little post-natal discharge. Her cough is less annoying, and general condition better; but there is certainly room for much improvement.

From the history, x-ray, and operative findings, I believe the sinus infection has been present since childhood; and probably antedated the chest symptoms. At the present time the pathologic changes have become so well established in both chest and sinuses, that only radical operative therapy of the sinuses is indicated; and, even then, I do not believe the results will be particularly good.

Case 6.—A 20 year old student nurse complained of rather mild headache, non-productive cough, lassitude, and loss of weight. A medical diagnosis of incipient tuberculosis was made; but repeated sputum examination failed to reveal a tubercle bacillus. X-ray of sinuses showed a sub-acute pansinusitis. The patient was put on the usual home treatment for tuberculosis; and, in addition, the sinuses were treated conservatively. In three months, the cough had entirely disappeared, she was feeling fine, had regained the lost weight, and was back at work. X-ray examination showed marked improvement in both chest and sinus conditions.

While it is not possible definitely to evaluate the role played by the para-nasal sinuses, the fact that improvement in the condition of the sinuses paralleled that of general symptoms is extremely interesting.

In summary, six cases of various pulmonary conditions accompanied by sinus disease are presented. In every case, the nasal symptoms were so mild that the patient sought first the aid of the internist who referred him to the rhinologist. In all cases, except the one with very chronic, long standing disease both areas, the improvement in general symp-

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THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to Welfare of Medical Association of Georgia

139 Forrest Ave., N. E., Atlanta, Ga.

MAY, 1932

NERVOUS AND MENTAL INFLUENCES IN ANGINA PECTORIS*

"Heberdeen in 1768 referred to the nervous and mental influences preceeding an attack of angina pectoris." He says "The angina pectoris, so far as I have been able to investigate, belongs to the class of spasmodic, not of inflammatory complaints." Stewart R. Roberts in his recent article reviews this subject and says, "It is well to think of the patient with angina in terms of a personal pathology. This involves a consideration of the "bad weather" and "storm" periods in the life of the patient as well as the stability or instability of his nervous life. He calls attention to the explanation of "the morbid entity" in terms of a cellular pathology and cites differential points in the pain of angina pectoris, coronary thrombosis, acute aortitis, organic heart disease, the neuroses, neurocirculatory asthenia and organic diseases causing precordial pain. Again he says "The structure and function of the circulation in an adult whose habits of personality are established is not to be separated from the nature of the personality. Nervous and mental influences are probably more closely connected with angina than with any other disease of the circulation save essential hypertension." Hence the treatment of the "anginous state is the real curative and preventive treatment of the agina itself." Attention is called to the rarity of true angina pectoris and other spasmodic affections in the negro and the Chinaman. This is attributed to the "accepting attitude," the tranquil placid, careless inner life of these races with its resulting freedom from the cares and strain of modern living. Angina pectoris is apparently on the increase. In dealing with this complex syndrome it is the responsibility of the physician not only to treat the pain of the attack but to study the personality make-up of his patient trying to

lessen the points of stress and strain in his every day life.

M. S. D.

QUACKERY RECEIVES BLOW IN BAKER LIBEL CASE

AMERICAN MEDICAL ASSOCIATION
GIVEN FAVORABLE VERDICT

*"Cancer Curer" Sues for One-Half Million
Dollars in Damages*

A radio station, a magazine and printed catalogs are fertile mediums for a quack's use in advertising, to lure hundreds of cancer sufferers to his "institute". A promoter of an alleged cancer cure, Norman Baker, of Muscatine, Iowa, recently sued the American Medical Association for half a million dollars in damages for so-called libelous statements made in *Hygeia* and in *The Journal* of the American Medical Association.

The case came to trial in the federal district court in Davenport, Iowa, and was heard before Federal Judge Gunnar H. Nordbye of Minnesota. The trial lasted four weeks. Testimony was offered by the American Medical Association through physicians and by scores of depositions, and much testimony was also presented by Baker. The jury returned a verdict for the American Medical Association of "Norman Baker vs. The American Medical Association March 3rd. Dr. Arthur J. Cramp writes *cal Association*" in *Hygeia*.

The JOURNAL would like to record the scientific work of Georgia doctors. It earnestly requests, therefore, that each physician in the State who publishes a contribution in some other medical periodical submit an abstract of the article for these columns.

Baker's previous enterprises had been commercial rather than medical, for he sold cigars, radio sets, storage batteries, flour, coffee, canned fruit, silverware, brooms, alarm clocks, overcoats, mattresses, automobile tires, typewriters and other things. He even gave a course in oil painting in ten lessons by mail, although he admitted that he could not paint.

His exploits as a "cancer curer" were far more profitable before the appearance of the editorials exposing him in publications of the American Medical Association. Baker claimed that his profits fell from \$75,000 for the month of June, 1930, to only \$7,000 in January, 1932, following the publication of the editorials.

The cancer cure consisted of hypodermic

*Roberts, Stewart R., Atlanta: Nervous and Mental Influences in Angina Pectoris. *The American Heart Journal*, Vol. VII, No. 1, p. 21, October, 1931.



ARTHUR G. FORT, Atlanta
President 1931-2



MARVIN M. HEAD, Zebulon
President-Elect 1931-2

injections, which Baker claimed made the cancer soften and pass away. So insidious were his methods that the American Medical Association was able to put in evidence between twenty-five and thirty death certificates of patients who died at the Baker Institute, and many of these same persons and others who died shortly after leaving the Institute, Baker advertised as being "cured of cancer."—*Hygica*, April 19, 1932.

PARA-NASAL SINUS INFECTION

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toms following relief of the sinus infection was striking.

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SECOND DISTRICT MEETING

The meeting, which was held at the John D. Archbold Memorial Hospital, Thomasville, April 8th, was called to order by the President, Dr. R. F. Wheat, of Bainbridge, at 2:50 p.m.

Invocation by Rev. T. F. Callaway, Pastor of the First Baptist Church.

Address of welcome by Mr. E. R. Jerger, Editor of the *Times-Enterprise*. In a few well chosen words, Mr. Jerger expressed to the members an appreciation of the medical fraternity and of the co-operation it has given to our local institution and welcomed them to Thomasville. A short response was delivered by the President.

Minutes of the last meeting were read by the Secretary and approved.

Scientific Program

The first paper on the program, "The Value of Routine Examination of the Ears," was presented by Dr. J. I. Palmer, of Thomasville. He spoke of the practical value of this in pediatrics and showed how thorough attention given to this condition often relieved otherwise unexplained illnesses. The paper was discussed by Doctors King, Moore and Andrews, of Thomasville, and Bacon, of Albany, privilege of the floor having been extended to the visitors.

The second paper, "Conservative Treatment of Maxillary Antrum Infection," was presented by Dr. A.

S. Bacon, of Albany. This was very brief and was discussed by Doctors King and Andrews, of Thomasville, and Dr. H. E. Palmer, of Tallahassee.

The third paper, "Some Phases of Induced Benign Tertian Malaria," by Dr. Mark F. Boyd, Director of the Florida Station for Malaria Research in Tallahassee. Doctor Boyd was a guest speaker. He told of the work being done on malaria prevention in Tallahassee and illustrated his interesting talk with diagrams and slides. Doctor Palmer, of Tallahassee, told of the excellent work that Doctor Boyd is doing and stated that the work was comparable to work done anywhere in the country and in foreign countries. Doctor Boyd cordially invited members of the society to visit his laboratory in Tallahassee. There was no discussion.

The fourth paper, "Appendicitis and some of its Complications," by Dr. Gordon Chason, of Bainbridge. Although an old subject, but acceptable and timely, it was given in a concise way by Doctor Chason and was freely discussed by many of those present.

The fifth paper, "Lithotripsy," was given by Dr. J. C. Keaton, of Albany. Doctor Keaton demonstrated the new instrument which is now in common use among urologists with which stones in the bladder can be crushed under direct vision and in most cases successfully removed. There was no discussion.

The Secretary read a statement of the financial status of the Society, including in this the disbursements and receipts passing through his hands during his term of office. The Secretary, who has served for the past seven years, stated that for definite reasons it was impossible for him to continue to serve in this capacity. Resignation was accepted by the Society.

A committee composed of Dr. A. D. Little, Thomasville; Dr. J. A. Redfearn, Albany, and Dr. C. K. Sharp, Arlington, was appointed to select the next place of meeting, to designate members of the Society to read papers at the next meeting and also to nominate officers for the ensuing year.

Following a brief interval the committee reported as follows:

Place of next meeting, Camilla, Ga.

Papers to be read as follows:

Medicine—Dr. R. A. Hill, Thomasville.

Surgery—Dr. J. M. Barnett, Albany.

Pediatrics—Dr. C. A. Stevenson, Camilla.

E. E. N. T.—Dr. Carl Welch, Bainbridge.

It was requested that Doctor Welch speak on the subject of "Trachoma".

Following officers were nominated:

President—Dr. A. S. Bacon, Albany.

Vice-President—Dr. W. C. Tipton, Sylvester.

Secretary-Treasurer—Dr. W. W. Jarrell, Thomasville.

The report of the committee was adopted as a whole.

There being no further business, the meeting adjourned.

CHAS. H. WATT, M.D., *Secretary*.
Thomasville, Ga. *Second District Medical Society*.

COUNTIES REPORTING FOR 1932

Upson County Medical Society

The Upson County Medical Society announces the following officers for 1932:

President—B. L. Bridges, Thomaston.

Vice-President—B. C. Adams, Thomaston.

Secretary-Treasurer—R. L. Carter, Thomaston.

Delegate—J. M. McKenzie, Thomaston.

Alternate Delegate—B. C. Adams, Thomaston.

Censors—J. E. Garner, C. A. Harris and B. C. Adams.

Hancock County Medical Society

The Hancock County Medical Society announces the following officers for 1932:

President—Horace Darden, Sparta.

Secretary-Treasurer—H. L. Earl, Sparta.

Delegate—C. S. Jernigan, Sparta.

Censors—Horace Darden, C. S. Jernigan and E. H. Hutchings.

Franklin County Medical Society

The Franklin County Medical Society announces the following officers for 1932:

President—Stewart D. Brown, Royston.

Secretary-Treasurer—B. T. Smith, Carnesville.

Colquit County Medical Society

The Colquit County Medical Society announces the following officers for 1932:

President—J. E. Lanier, Moultrie.

Vice-President—T. H. Chesnutt, Moultrie.

Secretary-Treasurer—C. C. Brannen, Moultrie.

Delegate—C. B. Slocumb, Moultrie.

Alternate Delegate—W. R. McGinty, Moultrie.

Taylor County Medical Society

The Taylor County Medical Society announces the following officers for 1932:

President—S. H. Bryan, Reynolds.

Secretary-Treasurer—R. C. Montgomery, Butler.

Toombs County Medical Society

The Toombs County Medical Society announces the following officers for 1932:

President—H. D. Youmans, Lyons.

Secretary-Treasurer—W. W. Odom, Lyons.

Delegate—J. E. Mercer, Vidalia.

Alternate Delegate—H. D. Youmans, Lyons.

Walton County Medical Society

The Walton County Medical Society announces the following officers for 1932:

President—J. B. H. Day, Social Circle.

Vice-President—T. R. Aycock, Monroe.

Secretary-Treasurer—W. H. Lott, Monroe.

Delegate—J. A. Pirkle, Monroe.

Alternate Delegate—P. R. Stewart, Monroe.

Censors—G. R. Wells and P. R. Stewart.

Blue Ridge Society

The Blue Ridge Society announces the following officers for 1932:

President—J. S. Tankersley, Ellijay.

Vice-President—N. C. Goss, Ellijay.

Secretary-Treasurer—C. B. Crawford, Blue Ridge.

Delegate—J. M. Daves, Blue Ridge.

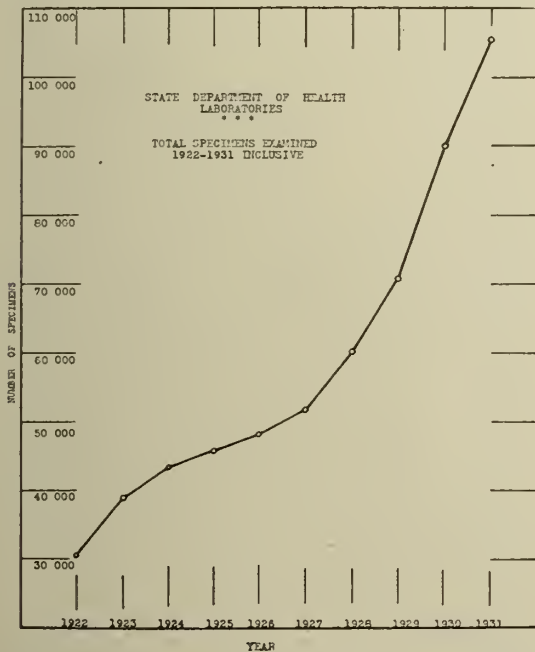
GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. ABERCROMBIE, M.D., *Director*

TEN YEARS' WORK STATE DEPARTMENT OF HEALTH LABORATORY

The growth of activity of the laboratories of the State Department of Public Health has increased steadily and rapidly during the past ten years as is shown in the accompanying graphs.

Graph No. 1 pertains to the total number of specimens examined during the past ten years. Graph No. 2 divides the total specimens into three groups—namely, Bacteriological, Wassermann and Water specimens, showing the annual rate of increase of each group. The three groups of specimens are further summarized according to the nature of the examination made for the ten-year period as follows:

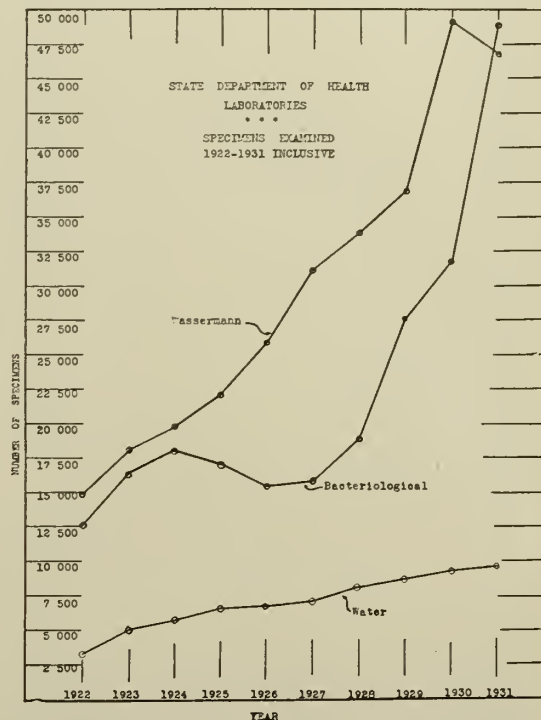


Tubercle Bacilli	24,164
Diphtheria	18,885
Typhoid, Paratyphoid, Undulant, Typhus (Brills) and Tularemia	37,216
Malarial Parasites	35,928
Intestinal Parasites	80,839
Gonococcus	11,047
Wassermann tests	298,273
Rabies (Negri bodies)	8,692
Miscellaneous	4,156
Water Samples	69,483
Grand Total	588,537

While there are many items worthy of comment in the composite report of the past ten years, the two most outstanding are those pertaining—First, to the laboratory diagnosis

of typhoid and other fevers and—Second, to the improved methods of preparation and administration of anti-rabic treatment.

Any physician in the State can now collect a single specimen of liquid whole blood in the Keidel vacuum tube and send it to the laboratory to be examined for typhoid, paratyphoid, undulant fever, typhus (Brills disease) and tularemia. A blood culture and a Wasserman test can also be made from the same specimen. Many cases of unsuspected undulant fever, typhus and tularemia have been discovered incidental to the routine technique of handling such specimens since this work was instituted in 1929. During the past three years 8,483 specimens of liquid blood have been subjected to this routine, with the result that 127 positive serological tests for undulant fever, 530 for typhus and



151 for tularemia have been obtained. Owing to the diagnostic limitation of the serological test for typhoid and paratyphoid due to the interference of acquired agglutinins from vaccination, previous attacks and non-specific agents, no estimation of the actual number of typhoid cases thus diagnosed is advisable.

From blood clots, however, 920 positive cultures for typhoid, 16 for paratyphoid and 23 for *Br. abortus* were obtained for the same three-year period.

In connection with this work during the

same three-year period 2932 specimens of stool and urine were cultured and of this number 139 were positive for typhoid, 3 for paratyphoid and 25 for the dysentery group.

Prior to 1922 the old Pasteur technique of manufacturing antirabic virus was still employed in this laboratory. In March, 1922, a special modification of the Hogyes method was instituted¹, and by the end of 1931, 19,461 persons had received antirabic treatment prepared by this method. Of this number ten died of rabies. All except one developed the disease during or within ten days after the completion of treatment. A treatment failure is defined by the Pasteur Institute of Paris as one where the disease develops after a lapse of two weeks following completion of treatment. The method of preparing antirabic treatment now in widespread use in Europe and America is known as the Semple Method. It consists of emulsions of killed fixed virus and is given in fourteen daily doses. Semple in a recent report on the results of his method analyses the result of 28,900 treated cases with a total mortality of 323 or 1.11 per cent. The writer is often asked why the Semple Method is not adopted by the Georgia Laboratories. When 1.11 per cent die of rabies after taking the Semple treatment, while less than .05 per cent die after taking the Georgia treatment, the answer is obvious. Even after assuming that only one-third of those taking treatment were actually bitten by rabid dogs, the other two-thirds being more or less doubtful exposures, the Georgia record stands at less than .15 per cent.

A relatively high mortality in those cases bitten about the face by rabid animals has been the experience of all laboratories distributing antirabic treatment. In 1928, two children died of rabies while being treated intensively for more or less severe face bites. Later in the year a little girl was severely bitten on the face and hands by a large dog later proven to be rabid. In view of the two recent failures with intensive treatment it was decided to give a much more drastic treatment consisting of four injections daily, one every six hours, for twenty-one days. In addition, one injection was given daily for seven more days. The preparation used after the first few the usual strength. In spite of the great frequency and concentration of dosage the child suffered no ill effects and when last seen two years later was well and happy. The successful outcome of this case prompted the adoption of what is now called the drastic days was three times more concentrated than treatment for all severe face bites. To date 46 cases have received various modifications of the drastic treatment. Of this number only

one developed rabies, and in this case drastic treatment was not begun until the ninth day after the patient was bitten.

Another original product of the Georgia laboratories is the method of staining and demonstrating the Negri inclusion bodies in the brains of rabid animals.² Because of its simplicity and comparative excellence, this method has been adopted in the majority of state laboratories where work of this kind is done. Incidentally the stain used in this procedure has proven to be very valuable in demonstrating many other organisms in exudates and tissues.

¹Am. J. P. H., 13, 813, 1923.

²Am. J. P. H., 17, 1080, 1927.

PREVALENCE OF SYPHILIS IN GEORGIA AS INDICATED BY SEROLOGICAL TESTS

Serological tests are rather delicate and are quite easily influenced by a number of factors which enter into their make-up. Consequently they are not infallible within themselves, yet they are probably relied upon by the medical profession more than any other single factor on which to base a definite diagnosis.

It is generally conceded that more significance can be attached to a positive than to a negative reaction. The chance of error is much more frequent on the negative side. In attempting to make an estimation or to measure anything we must first adopt a unit as a standard for that estimation or measurement, even though that unit be but an approximation. Then, too, if it is impossible to measure a thing in its entirety, we must select a representative cross-section of the whole.

A majority of the blood specimens received at the laboratories of the Department of Public Health are submitted by general practitioners. These specimens come from all walks of life and are rather evenly distributed throughout the State. Of course the more populous counties, such as Fulton, submit the greater number of specimens. In this county quite a bit of clinic work is done with a high percentage of positive findings. Yet these are people of the state and the high incidence of infection found in the clinic patients can be offset by the lower incident singularly found in the less populous rural communities.

If we accept the positive findings of the serological tests as the criterion and the blood specimens received by the Department of Public Health as a representative cross-section of our State, then from the annual report of the Division of Serology a deduction can be made

(Continued on page 216)

GEORGIA STATE NURSES ASSOCIATION

Officers

President—Miss Alice F. Stewart, R. N., Augusta.
 First Vice-President—Miss Dora A. Kershner, R. N., Macon.
 Second Vice-President—Miss Lillian Cumbee, R. N., Emory University.
 Secretary—Miss Florence Pund, R. N., Augusta.
 Treasurer—Miss Jane Van De Vrede, R. N., Atlanta.
 Miss Jane Van De Vrede, R. N.
 Executive Secretary

District Presidents

First—Mrs. Dorothy Treacle, R. N., Savannah.
 Second—Mrs. B. Y. Vann, R. N., Thomasville.
 Fourth—Miss Lucia Massee, R. N., Cuthbert.
 Fifth—Mrs. Sue B. Paille, R. N., Atlanta.
 Sixth—Mrs. Sarah P. English, R. N., Sandersville.
 Seventh—Miss Shirley Hamrick, R. N., Cedartown.
 Eighth—Miss Lynda Bray, R. N., Athens.
 Ninth—Miss Ruby Falls, R. N., Gainesville.
 Tenth—Mrs. Olive Barbin, R. N., Augusta.

Headquarters

131 Forrest Avenue, N. E., Atlanta.

THREE NATIONAL NURSING ORGANIZATIONS

Biennial Convention

San Antonio, the colorful city of the Lone Star State, was the setting for and Texas nurses were hosts to the Biennial Convention of the three National Nursing Organizations—the American Nurses' Association, the National League of Nursing Education and the National Organization for Public Health Nursing—April 11-15.

Three thousand registered nurses, representing the 108,000 who are members of the American Nurses' Association, were in attendance; and representatives of allied professional organizations, including the American Medical Association, the American College of Surgeons, and the American Hospital Association, were also present to participate in the programs of the three nursing organizations, which held both joint and separate meetings during the week. All sessions were held in the beautiful municipal auditorium; and the warm welcome accorded the visitors by the citizens of "San Antone" will be long remembered by those fortunate enough to have attended the convention.

The overproduction and consequent unemployment in the nursing field; the need for higher standards, and of closer co-operation between allied professions and groups, and with the public, were the principal subjects under discussion throughout the week and the major problems of all three organizations.

Citing the continuous increase of trained nurses in this country, who now number 294,268, Miss Elnora E. Thomson, president of the American Nurses' Association, urged that the entire strength of the organization, which has increased by 28,000 members within the past two years, be directed toward diminishing the production of nurses and the

maintaining of a proper ratio between nurses and population by proper control of student output, and by better distribution, through development of new fields of service for nurses. Miss Thomson stressed the need of co-operation between all nursing groups and with the patient.

It was apparent that the seriousness of the nursing situation is recognized; and while no formal resolutions to deal with the question of overproduction were presented, it was the consensus of the Association that a pronouncement regarding standards should be made on the basis of the findings of the National Committee on the Grading of Nursing Schools, which has recently completed a five year survey of the nursing schools of this country.

Miss Annie W. Goodrich, Dean of the Yale University School of Nursing, who, on Tuesday evening, was awarded the Walter Burns Saunders' Medal for distinguished nursing service, urged standards of nursing which will be on a par with those required in such professions as medicine and law. Miss Goodrich said she felt the nursing program should provide for meeting the hospital and community needs through a co-operative and co-ordinated plan of nursing education, jointly supported by the state, private subsidy and students; and she gave as her opinion that standards of nursing could be elevated and a more efficient nurse result through making entrance requirements more rigid. She called attention to the unsound practice prevailing and to the injustice which permits a recent graduate, with minimum experience, to command the same returns for service as the skilled and experienced graduate.

Dr. William Darrach addressed the convention as chairman of the National Committee on the Grading of Nursing Schools. Doctor Darrach said that raising the entrance requirements would appear to be an excellent

way of both diminishing the supply and improving its quality; and he said that measures both to reduce the number of nursing schools and the size of classes will be adopted. "This must be carried out, of course, with wisdom, because the student nurses now are providing a considerable proportion of the nursing service at low cost. It is disappointing that more attempts have not been made to work out plans for graduate and group nursing, both in the hospital and the homes. The plan by which the private patient in the hospital may receive and pay for nursing actually needed and no more has proved successful and should be put into effect on a much larger scale." Doctor Darrach said he hoped and expected to see the time when various types of central schools, whether as parts of a university or not, with staffs of qualified and full time teachers, will meet the teaching needs of hospitals in their vicinity, taking the place of the hospital training system now in vogue.

Dr. May Ayres Burgess, Director of the National Grading Committee, said: "There is no other problem in nursing which is so important as the one of overproduction. If every school of nursing in the United States today were giving as good training as is now given by the best schools in the country, there would still be unemployment and discouragement and criticism and distress. It would still be difficult to get into the schools enough young women of the right kind; and it would still be difficult to find nurses with the proper training for the higher positions. No matter what the schools are like, women of intelligence and breeding will not enter the nursing profession in any considerable numbers if they know that they cannot hope to win a satisfactory living by practicing the nursing profession. Overproduction means unemployment—dissatisfaction. Unemployment and its resulting unhappiness cannot be concealed. The most important task in nursing today is to reduce the numbers of new nurses entering the field, and to make it possible for every qualified nurse to earn a satisfactory living. A unanimous, vigorous, courageous campaign for better graduate nursing service in the community would be the most effective way of curing overproduction and securing the partnership of the public to make the nursing profession what it ought to be."

Doctor Burgess reported that the number of trained nurses in this country increased 97 per cent from 1920 to 1930, while the population increased only 16 per cent. In addition to the graduates, there are 153,443 untrained nurses serving in the United States. Doctor Burgess says only the best

students in high school graduating classes should be encouraged to go into nursing, because they are the only ones who stand a chance in this overcrowded field.

Dr. E. P. Lyon, Dean of the Medical School of the University of Minnesota, outlined a plan whereby nurses would be compensated fairly by the hospitals for their service. He said by decreasing the number of nursing schools the standard of the nursing profession would be raised and the oversupply automatically eliminated.

Dr. Paul Fesler, President of the American Hospital Association, declared that the oversupply of nurses will not be overcome until nursing schools emphasize education and not nursing. He said it was not the duty of hospitals to educate nurses, and that only young women of the highest intelligence should be allowed to enter schools of nursing.

Janet M. Geister, R. N., Director at Headquarters of the American Nurses' Association, gave suggested steps in "evading another depression", and said that alone of all the professions the service of the private duty nurse is still obtainable in the old fashioned long time period of 12 or 24 hours.

Geneva Peters, R. N., of Shreveport, La., speaking before the Private Duty Section of the American Nurses Association, said in part: "What we need in the private duty field is to modernize our method and give the public what it wants. We find in our field an overcrowded condition, poorly prepared nurses, unemployment, inadequate incomes, long hours, lack of organization and poor distribution of nursing service." Miss Peters recommended the use of three nurses in place of two for seriously ill patients in the 24 hour period; a 10-hour a day companion service, and hourly nursing service.

Arthur J. Todd, Ph.D., head of the Department of Sociology, Northwestern University, discussed the present economic situation; and Dr. C. M. Hincks, General Director of the National Committee for Mental Hygiene, with Miss Effie Taylor, R. N., discussed the subject of mental hygiene.

Miss Katherine Densford, R. N., discussed a better selection of and aptitude tests for students. Miss Alta E. Dines, R. N., Mrs. Elizabeth S. Soule, R. N., and Miss Mary M. Roberts, R. N., were among other speakers appearing on the program of the American Nurses' Association.

The several Sections of the A. N. A.—Private Duty, Government, Legislative, Mental Hygiene, etc.—held special sessions; and there were round tables for Registries and hospital superintendents; conferences for state associations and state executive secre-

taries and state boards of examiners. The American Red Cross held a featured session.

National League of Nursing Education

The five day program of the National League of Nursing Education included a session for Instructors; several round tables; a session of the Education Committee and general sessions. Miss Elizabeth C. Burgess, president, presided; and the speakers were such leaders as Miss Isabel Stewart, Professor of Nursing Education, Teachers' College, Columbia University; Miss Laura R. Logan, Dean of the Cook County School of Nursing, Chicago; Miss Gladys Sellow, Assistant Dean, Cook County School of Nursing; Miss Daisy Dean Urch, Dean of Highland Hospital School of Nursing, Oakland, California; B. F. Pittenger, Ph. D., Dean of the School of Education, University of Texas; Miss Adda Eldredge, Director Bureau of Nursing Education, Wisconsin State Board of Health; E. P. Lyon, Ph. D., Dean of the Medical School of the University of Minnesota; Charles E. Friley, Ph. D., Dean of the College of Liberal Arts, A. & M. College, Texas, and others.

At the business session on Friday, Miss Effie J. Taylor, of New Haven, Conn., was named president of the National League of Nursing Education. Miss Nellie Hawkinson, of Cleveland, Ohio, was elected first vice-president, succeeding Miss Taylor; Miss Julie C. Tebo, of New Orleans, was re-elected second vice-president; Miss Stella Goostray, of Boston, was re-elected as secretary, and Miss Marian Rottman, of New York City, will again serve as treasurer. Miss Elizabeth C. Burgess, retiring president, Miss Katherine Densford, Miss Shirley C. Titus and A. Louise Dietrich were named directors.

National Organization for Public

Health Nursing

The National Organization for Public Health Nursing, which observed its twentieth birthday during the convention, presented a program of exceptional interest, beginning Monday and lasting through Friday. Miss Sophie C. Nelson, president, drew attention to present problems and future needs in public health. Efficient preventive work, said Miss Nelson, is decreasing the infant mortality rate from diphtheria and other child maladies; also from tuberculosis and other communicable diseases. "The dollar spent for preventing sickness is worth many dollars spent on uncertain remedies."

Miss Sophie C. Nelson was re-elected as president of the N. O. P. H. N. at the business session of that organization on Friday afternoon. Miss Winifred Rand, of Detroit, was re-elected as first vice-president; Mrs. C. E. A. Winslow, of New Haven, Con-

necticut, second vice-president. Michael M. Davis was renamed treasurer. Nurse members of the directorate chosen were Miss Ann Dickie Boyd, Miss I. Malinde Havey, Miss Marion G. Howell, and Miss Marguerite A. Wales; while non-nurse directors named were Mrs. Chester Bolton, Mrs. J. L. Brock, and Dr. W. F. Walker.

Miss Katherine Tucker is General Secretary of the N. O. P. H. N.

Miss Goodrich Receives Distinguished Service Medal

Honoring a nurse whose brilliant record and eminence in the nursing profession are matched by very few, the Walter Burns Saunders' Medal for distinguished service was awarded to Miss Annie Warburton Goodrich, Dean of the School of Nursing of Yale University. The presentation was made by Dr. Edward H. Cary, president-elect of the American Medical Association, at the Tuesday evening session of the Biennial Convention of National Nursing Organizations, who termed Dean Goodrich "an unequivocal example of character, industry, helpfulness, training and intelligent leadership."

Miss Goodrich's services as nurse, instructor and administrator of several of New York's hospitals, including position as superintendent of nurses of the school of nursing of Bellevue and allied hospitals; as director of Henry Street Visiting Nurse Service; as Dean of the Army School of Nursing, were recounted by Doctor Cary. Miss Goodrich received from the United States Government a medal for distinguished service on behalf of the American soldiers during the World war; and from France the *Medaille d'Honneur de l'Hygiene Publique*. In addition, she holds a medal from the Institute of Social Sciences.

Miss Goodrich is a native of New Brunswick, N. J., and was educated in the private schools of this country, of France and England. She has been Dean of Yale University School of Nursing since 1923. Her latest book "The Social and Ethical Significance of Nursing," epitomizes the contribution her writings have made to the development of nursing as the expression of an art as far-flung as the borders of the globe.

Ceremonial

A special feature of the convention was the beautiful ceremonial on Tuesday evening, participated in by officers of the American Nurses' Association and the presidents of state associations, in which presentation of a signed scroll indicating the increase in membership of each state association during the biennial period was made.

During the ceremonial a bronze lamp was

(Continued on page 212)

WOMAN'S AUXILIARY

MEDICAL ASSOCIATION OF GEORGIA

OFFICERS

President Mrs. Ralston Lattimore, Savannah
 President-Elect.....Mrs. S. T. R. Revell, Louisville
 1st Vice-President...Mrs. J. Bonar White, Atlanta
 2nd Vice-President...Mrs. C. B. Almand, Winder
 3rd Vice-Pres., Mrs. D. N. Thompson, Elberton

Recording Secy.....Mrs. J. E. Penland, Waycross
 Cor. Secretary... Mrs. Wm. R. Dancy, Savannah
 Treasurer.....Mrs. Ben Bashinski, Macon
 Parliamentarian Mrs. Allen H. Bunce, Atlanta
 Editor.....Mrs. G. H. Johnson, Savannah

WOMEN FOR HEALTH AND HAPPINESS*

Possibly in no field of education within the past few years has shown more progress than has that of health education. Today all over the world there is a growing demand for better health laws and better health protection, which brings results of health and happiness.

How true it is that all progress, all acceptance of new truth, all moral and spiritual vision for every new generation are bound up inevitably with the women of each nation.

Many years ago Confucius wrote "Woman is the Masterpiece," and Lambertine, that "There is a woman at the beginning of all great things." There was a time in the distant past when woman was a mere slave and chattel of man. But civilization brought to man a realization of her virtues, her grace, her depth of love and sacrifice and her tremendous power for good and the helpmate of the individual and the mother of the race, for God blessed her with motherhood and gave her the great privilege of training and teaching her little ones, and moulding them after His ideals.

It was woman the wife who helped her primitive husband in the brewing of herbs, barks, and berries which he found successful in alleviating pain or in curing illness, she watched the pot that it did not boil over or go dry, she was his assistant and became responsible for the brewing that it might be correct so as to save him from criticism, and became in a way the natural defense of the Code of Medical Ethics of her primitive husband.

The progress of woman has been slow but sure, onward and upward. Jesus saw their wonderful possibilities and proved them eligible to the deeper meanings of life. To Martha the good cook and perfect housewife, he revealed the great personal meaning of the resurrection hope, and commended the spiritual insight of Mary and Bethany.

The day of co-operation is at hand. The day of *isolation* is past, many organizations offer opportunity for creating and building for better health. Then do you wonder that women are active in and through the many organizations in creating and building that which helps to make their children physically, mentally, morally, and spiritually better.

Every woman is by nature a nurse, and it is woman's work. Florence Nightingale so magnified this great art that women have no competition in this field.

Just as Mrs. William Booth played so important a part in the Salvation Army of the past, so her daughter today, Evangeline Booth, who began her work in the slums of London, and latter became the head of the American branch of the Army helping and restoring thousands to health and happiness.

American women have been leading onward and upward for several generations, their *competence* is being *unquestioned* in whatever they undertake, finding their places and filling them.

In all great movements of history whenever the need of a leader has arisen, somehow women have come forward as leaders. Clara Barton, as a nurse with the Army of the Potomac in the Civil War did much to alleviate the hunger, thirst, torture, and the physical and mental anguish of the wounded and dying.

Francis Willard led the crusade against intemperance in the United States in 1874, and founded the World's Christian Temperance Union, now organized in 51 nations, that the future generations might *grow strong, be healthy and happy*.

The great organization of the National Congress of Parents and Teachers was founded by women, Mrs. Theodore W. Birney and Mrs. Phoebe A. Hearst. The organizers, both men and women, representing the philanthropic, religious, social, and political interest of the nation realized that while *mothers* have largely determined the *character* of young children they have lacked *guidance* and means of *co-operation*. Their

*Address before the Woman's Auxiliary to the Tenth District Medical Society, Augusta, Ga., March 16, 1932.

influence upon the race was limited by conditions outside the home over which they had no control. It was the aim of the Congress of Mothers to organize such control in order to bring about right conditions in all that touches childhood in home, school, church or state, and from this came into existence the Parent-Teacher Association, with its four square program, for health and happiness, by training in physical, mental, moral, and spiritual education for building better *homes*, better *schools*, and better *communities* for better *boys and girls*.

Jane Adams recently received the Nobel prize because of her long period of public service in the field of social reform. She is known throughout the world as one of America's most outstanding women citizens. She is the president of the Woman's International League for Peace.

Madame Marie Curie, who in co-operation with her husband, M. Perrie Currie, made such discoveries in the realm of radium activity that the world has become their eternal debtor. In 1903 they were awarded the Nobel prize in chemistry. After the death of M. Currie, Madame Currie was made chief professor of physics in the University of Paris.

Dr. Elizabeth Thelberg, outstanding in the world of medicine, is resident physician and professor in Vassar College, member of advisory committee of the United States Public Health Service, and Fellow of the American Medical Association.

Ruth Bryan Owen, an eminent member of Congress from the Fourth District of Florida, served as nurse during the World War, in the volunteer aid detachment of the British Army in Egypt-Palestine campaign.

The horrible World War opened the eyes of women to many things. The mobilization of our men, money and merchandise exposed the lax method of keeping account of our citizenship. For the money power of the nation was shown to be a matter of record even to a cent, her productive powers also a matter of record, while the statistics relating to man, the producer of her wealth, was sadly missing.

The draft revelations showed that one out of four of our young men who ought to have been a flower of health were physically unfit to bear arms for their country. And so with this clarity of vision and with renewed strength of purpose, our nation has *determined* that such shall not exist, and thus her various municipal health organizations are spending annually millions and millions of dollars and concentrating their very best efforts to *teach people* the value of *good health*.

The women of the Woman's Auxiliary

to the Medical Association of Georgia long since realized their children are their most valuable assets and that the future of the nation depends upon them. So they have co-operated with the various health organizations, with the Medical Societies and with the State Board of Health in the education of the public in hygiene.

Why? For the sake of health, which brings contentment and happiness. And what is health? Doctor Crumbine's definition: "Health is a state of physical, mental, and moral equilibrium, a normal functioning of the *body, mind, and soul*. It is the state when *work* is a *pleasure*, when the work looks *good and beautiful*, and the *battle of life* seems *worth while*. Health is the *anti-thesis* of *disease, degeneracy of crime*. The laws of health are as *inexorable* as the law of *gravitation*, as *exacting* as *eternal justice*, as *relentless* as *fate*, and their violation is the beginning and the cause of all *disease, suffering and sin*. Health is the most desired of earthly blessings. When finally lost it cannot be purchased by uncounted millions, restored by the alienist, or returned by the pulpit. Health is the state of *happiness, faith, and love* whose *prototype* was the first man, *Adam*, whoses ideal is the Christ.'.. Yes, we are for health and happiness, as,

The blue birds spread cheerfulness
Where'er they chance to be,
For their motto is happiness,
So they never fret, you see,
Just always smiling, happy, gay,
Scattering sunshine day by day.

Thus women feel that it is great and well worth while to lend their influence in the cause of good health:

For their motto, too, is happiness.
And they *are* scattering sunshine
day by day.

MRS. JAS. B. DILLARD,
Manager Tenth District.

EIGHTH DISTRICT MEETING

The Woman's Auxiliary to the Eighth District Medical Society, met Wednesday morning, February 10, 1932, at the beautiful home of Mrs. Chas. Brightwell, of Athens, Ga. The Clarke County Auxiliary being host. The meeting was called to order by Mrs. B. C. Teasley, District Manager, promptly at eleven o'clock.

Invocation—Mrs. A. C. Holliday.

Welcome Address—Mrs. Chas. Brightwell, Athens.

Response—Mrs. Joe I. Jenkins, Hartwell.

Introduction of Distinguished Guests—Mrs. Paul Holliday.

Viz: Dr. J. C. Decker, Athens, Ga.; Mrs. S. T. R. Revell, State President-Elect, Louisville; Mrs. J.

Bonar White, State First Vice-President, Atlanta;
Mrs. D. N. Thompson, State Third Vice-President,
Elberton.

Address—Dr. J. C. Decker.

Address—Mrs. S. T. R. Revell.

Solo—Three rendered by Mr. Reid Manley, Madison.

An inspirational message was brought to us from Mrs. J. Bonar White, delegate to the Southern Medical Association, at New Orleans. Mrs. White also gave a splendid talk on Health Education, and plans being worked out by her committee.

Reports of County Auxiliaries are as follows:

Clark County, Mrs. Paul Holliday.

Elbert County, Mrs. D. N. Thompson.

Hart County, Mrs. W. I. Hailey.

Mrs. Stewart D. Brown emphasized the importance of the Student Loan Fund. Ladies present from unorganized counties were urged to organize. Motion carried to adopt a Constitution and By-Laws for the Eighth District Auxiliary. Mrs. Paul Holliday, Mrs. D. N. Thompson and Mrs. Joe I. Jenkins were appointed as a committee to draw up same at noon hour and report at the call session.

Mrs. Hubert, Chairman Registration, reported thirty-three ladies present, representing ten counties.

Meeting was adjourned at 1:30 p.m. A most delightful social hour was enjoyed at which time a lovely luncheon was served.

A short meeting was held in the afternoon. The Constitution and By-Laws drawn up by the committee were read by Mrs. Paul Holliday and unanimously adopted. A nominating committee was appointed as follows:

Mrs. Guy Whelchel.

Mrs. W. I. Hailey.

Mrs. D. N. Thompson.

A standing vote of thanks was given Mrs. Chas. Brightwell and the Clarke County Auxiliary for their cordial hospitality after which the meeting adjourned.

MRS. B. C. TEASLEY,

District Manager.

MRS. JOE I. JENKINS,

Secretary Pro Tem.

NINTH DISTRICT MEETING

The Woman's Auxiliary to the Ninth District Medical Society was held at Gainesville, March 16th.

Presiding—Mrs. C. L. Ayers, Toccoa, District Manager.

Invocation—Mrs. J. E. D. Isbell, Toccoa.

Welcome Address—Mrs. W. R. Garner, Gainesville.

Response—Mrs. J. C. Bennett, Jefferson.

Address—Dr. C. W. Roberts, Atlanta.

Greetings from our State President—Mrs. Ralston Lattimore, Savannah.

Piano and Violin Solos—Mrs. John Woodcock and Mrs. Lester Quattlebaum.

A Message from Mrs. S. T. R. Revell, Louisville, President-Elect.

Music.

A message from Mrs. J. Bonar White, Atlanta.

Business Meeting.

Report of County Auxiliaries.

Chairman, Mrs. C. L. Ayres, Toccoa.

Vice-Chairman, Mrs. E. M. McDaniel, Jefferson.

Secretary, Mrs. W. H. Garrison, Clarkesville.

Parliamentarian, Mrs. J. C. Bennett, Jefferson.

TENTH DISTRICT MEETING

The Auxiliary to the Tenth District Medical Society met in Augusta at the Nurses' Home, at 3:30 p.m., Friday, March 11, 1932.

There were twenty ladies present.

Mrs. Revell, State President-Elect, gave an inspiring talk.

Mrs. Jas. B. Dillard, District Manager, read a wire from Mrs. Ralston Lattimore, State President, expressing her regret because it was not convenient to attend the meeting.

Greetings from Mrs. Lattimore were read by Mrs. W. C. Kellogg, President of the Augusta Auxiliary. Following the meeting the guests were entertained at tea by Miss Stewart, State President of the Nurses' Association, and afterwards taken for a drive over the city. They were then taken to the home of Mrs. Guy Bernard, where an informal reception was held.

Mrs. Walter Jackson Freeman, President-Elect of the Woman's Auxiliary to the American Medical Association, attended the annual meeting of the Georgia Auxiliary in Savannah, May 17-20, 1932.

THREE NATIONAL NURSING ORGANIZATIONS

(Continued from page 109)

awarded the South Dakota State Nurses' Association for the greatest percentage of increase in membership during the 1931 campaign. Other awards included a lamp to the Des Moines school of nursing for presentation of the best pageant; to the Greenwich, Conn., Hospital Alumnae for the best history of an alumnae organization, and to Janet O'Neil of the Ann Arbor, Mich., University school of nursing for the best essay on "What the American Nurses' Association Means to Me."

Election of Officers

At the final business session, Miss Elnora E. Thomson, of Portland, Ore., was re-elected as president of the American Nurses' Association; Miss Jane Van De Vrede, of Atlanta, as first vice-president; Miss Mabel Dunlap, of Moline, Ill., as second vice-president; Miss Susan Francis, of Philadelphia, as secretary; and Miss Emma L. Nichols, of Boston, was elected as treasurer. Miss Louise Dietrich, of El Paso, Texas; Miss May Kennedy, of Chicago, and Mrs. Elizabeth S. Soule, of Seattle, Wash., were elected as directors of the organization. The 1934 Biennial will be held in Washington, D. C.

COMMUNICATIONS

FREE HOSPITALIZATION AND TREATMENT
To The Editor:

As you undoubtedly know, it is possible at the present time for any ex-service man to receive free medical and hospital attention for any disability or illness, regardless of its cause.

It seems grossly unfair to me that any person should be given such service by the Government for conditions arising fourteen years after the war is over. It is certainly an unfair hardship on the medical profession for these people, the majority of whom are able to pay for medical attention, to be given hospitalization and treatment for such conditions as acute appendicitis, acute sinus infections, influenza, pneumonia, kidney stones, gall stones, fractures, head injuries, and in fact any acute injury, simply because they were in the army fourteen years ago.

The medical profession was also represented in the army, and by common consent was a most valuable unit.

My idea in writing you at this time is to ask your co-operation in having our delegates to the coming meeting of the American Medical Association in New Orleans bring to the attention of the house of delegates at that meeting this grossly unfair situation.

Just at present, there is a great clamor for reduction of government expenses and some of the more timid have gently whispered that perhaps a great saving could be accomplished by limiting medical attention and hospitalization to those cases of service connection only. I feel that if the American Medical Association made a forceful appeal to Congress at this time that something could be done that would benefit the medical profession.

Now, please do not misunderstand me. I am in favor of doing everything possible for those men who have service connected disabilities. I feel that we can not do too much for the men who were injured in the war, and to the widows and children of ex-service men. I think a most generous attitude should be taken.

But, I do believe that this way of every person who ever saw an army rifle being given free medical service is a gross outrage on our profession, which has always served its country, not only in time of war, but in time of epidemics and in times like the present, when every doctor is doing a large amount of free work.

I think it a very serious menace to the profession for the government to build large hospitals for ex-service men when there is at present a surplus of hospital beds in every state and county in the union. A recent report of the American Hospital Association shows that seventy per cent of our hospital beds in the United States are now free, a tremendous increase in the last decade.

If our profession is to survive, and the numerous graduates who are coming on each year are to find a living in private practice, then it is time for our organization to begin fighting for self-preservation.

I sincerely trust that these views will meet with your approval, and that you will use your influence

to see that something is done immediately about this matter.

Trusting that I may have a reply at your earliest convenience, I remain with kindest personal regards,

JULIAN K. QUATTLEBAUM, M.D.

Savannah, Ga., April 17, 1932.

ARTIFICIAL PNEUMOTHORAX

To the Editor:

Frequently when we are ready to dismiss a patient from the sanatorium who is being treated with some type of collapse measures, we find that we are unable to recommend a physician in their immediate community who is equipped to continue this treatment when they have returned home. Therefore, I should like for you to give me a list of the physicians, if you have such at your disposal, throughout the state who are equipped to administer any of the measures producing pulmonary collapse, particularly those administering pneumothorax. If you do not have such a list, I should like for you to publish this letter, or such excerpts therefrom as you deem wise requesting that physicians who are glad to co-operate in this matter, and to whom we may refer patients returning home, communicate with the sanatorium so that their names can be listed in our files for future use.

M. F. HAYGOOD, M.D.,

Supt., State Tuberculosis Sanatorium.

Alto, Ga., April 27, 1932.

NEWS ITEMS

The Muscogee County Medical Society held its regular monthly meeting and annual banquet in the private dining room of the Hotel Cricket on April 14th. Dr. Michael Hoke, formerly of Atlanta, and Dr. LeRoy Hubbard, of the Georgia Warm Springs Foundation, were guests.

Dr. W. S. Elkin, Atlanta, was honored by members of the Fulton County Medical Society at a dinner at the Atlanta-Biltmore Hotel on April 11th. He has been engaged in active practice of medicine for fifty years. Among the speakers were: Dr. Frank K. Boland and Dr. W. S. Goldsmith, both of Atlanta. Doctor Elkin is a charter member of the Fulton County Medical Society. He has been on the faculty of Emory University School of Medicine for forty-three years, and Dean from 1905 to 1925.

Dr. and Mrs. C. B. Lord, Jefferson, entertained the members of the Jackson County Medical Society at their home on April 4th.

The Georgia Medical Society held its regular meeting on April 12th. Dr. William H. Myers, Savannah, read a paper entitled "Surgery of the Gallbladder"; Dr. George W. Heriot, Jr., Savannah, case report of "Duco Poisoning". Discussions were led by Dr. H. T. Exley and Dr. M. J. Egan, both of Savannah.

A handsome portrait in oil of Dr. J. D. Westmore-

land, deceased, a former practicing physician of Atlanta and co-founder of the Atlanta School of Medicine, was presented to Emory University School of Medicine by Mrs. Julius L. DeGive, Atlanta, granddaughter of Doctor Westmoreland. Dr. J. L. Campbell, Atlanta, made the presentation address, and Dr. Russell H. Oppenheimer, Atlanta, made the speech of acceptance on behalf of the University.

Dr. and Mrs. Horace Darden, Sparta, entertained the members of the Hancock Medical Society at dinner in their home on April 5th.

The Terrell County Medical Society met at the office of Dr. Guy Chappell, Dawson, on March 25th. Dr. J. C. Patterson, Cuthbert, spoke on the "Different Forms of Cancer"; Dr. Lucius Lamar, Dawson, talked on "What the General Practitioner Should Know About Cancer". Dr. Guy Chappell, Dr. W. P. Durham, Sasser, and Dr. J. T. Arnold, Parrott, gave case reports.

The Fulton County Medical Society met at the Academy of Medicine, Atlanta, on April 21st. The scientific program consisted of a "Symposium on Tuberculosis"; "Introduction", Dr. Champneys Holmes; "Childhood Tuberculosis", Dr. T. I. Wiltingham; "Surgery as an Aid in the Treatment of Pulmonary Tuberculosis", Dr. Ben H. Clifton; "Differential Diagnosis", Dr. C. C. Aven; "General Treatment of Pulmonary Tuberculosis", Dr. A. M. Dimmock.

Dr. W. H. Lott, Monroe, has resumed his practice after spending six weeks at the New York Polyclinic Medical School and Hospital, New York City, taking postgraduate work in general medicine.

The Walton County Medical Society met at the Walton County Hospital, Monroe, on May 6th. Officers were elected. The next meeting will be held in the Doctors Building, Monroe, June 7th. Dr. T. R. Aycock, Monroe, will read a paper on "Empyema"; Dr. Phil R. Stewart, Monroe, will read a paper entitled "Hypertension".

Dr. T. H. D. Griffiths, formerly at Albany in the U. S. P. H. S., was directed to go via New Orleans to San Salvador, Central America, and to Puerto Barrios, Guatemala, for conferences with the Sanitary Inspector; thence to Panama City, Panama, Cristobal, Canal Zone; and to such other places in Central and South America as may be necessary to make arrangements for a continuation of airplane and mosquito studies.

The staff of the Cook County Hospital, under the auspices of the Chicago Medical Society, will give its regular Summer Clinics during the weeks of June 6th to 18th, inclusive. A registration fee of \$10.00 will be charged to cover expenses.

Dr. T. F. Abercrombie, Atlanta, Director of the Department of Public Health, announces the appointment of the following to the Advisory Board for the Department of Public Health: Dr. J. A. Redfearn, Albany; Dr. C. L. Ridley, Macon; Dr. Arthur G. Fort, Atlanta; Dr. H. L. Erwin, Dalton; Dr. William H. Myers, Savannah.

The Spalding County Medical Society held its monthly meeting on April 19th at the Strickland and Son Memorial Hospital, Griffin.

The Macon Medical Society met at the Macon Hospital on April 19th. Dr. Charles H. Richardson and Dr. H. G. Weaver, both of Macon, were on the scientific program.

Dr. and Mrs. E. H. Lamb, Demorest, entertained the members of the Habersham County Medical Society at their home on April 8th.

Dr. Walter R. Holmes, Atlanta, was elected President of the Southern Society of Clinical Surgeons at a meeting held in Rochester, Minnesota, April 14-16. Dr. W. Perrin Nicolson, Atlanta, was re-elected Secretary-Treasurer.

The Seventh District Medical Society met at Rome on April 6th. The titles of papers on the scientific program were as follows: "Treatment of Diabetes Mellitus", Dr. W. P. Harbin, Jr., Rome; "Radiation vs. the Surgical Treatment of Benign Hemorrhage", Dr. Edward Newell, Chattanooga, Tenn.; "Transurethral Prostatic Resection," Dr. Earl Floyd and Dr. J. L. Pittman, Atlanta; "Some Unusual Cardiac Complications in Hyperthyroidism With Report of Four Cases", Dr. H. C. Sauls, Atlanta; "Hypothyroidism in Children", Jas. A. Wood, Atlanta; "Some Epidemiological Considerations of Tuberculosis", Dr. M. F. Haygood, Alto; "Medical Treatment of Asthma, Hay Fever and Allied Conditions", Dr. Hal M. Davison and Dr. Mason I. Lowance, Atlanta.

The members of the Cobb County Medical Society secured an indictment against one G. C. Lyda for practicing medicine in Cobb County without a license, employed an able attorney to assist the Solicitor General in the prosecution of the case and convicted the defendant. The sentence imposed by the trial judge was a fine of \$500.00, 12 months on the chaingang and 6 months imprisonment in the county jail. Upon the payment of the fine, the chaingang and prison sentences were suspended and the defendant placed on probation under Dr. J. E. Lester, Marietta.

The Randolph County Medical Society met at the Woman's Club Room, Cuthbert, on May 5th. Dr. W. G. Elliott, Cuthbert, read a paper entitled, "Doctor Robert Koch".

The regular Staff meeting of St. Joseph's Infirmary, Atlanta, was held on April 26th.

The Lowndes County Medical Society has formulated plans to establish a "Bureau" for the collection of past due accounts to its members. No hardship will be dealt charity patients but those who can pay for medical service will be forced to do so.

The members of the Troup County Medical Society propose to establish a clinic for the treatment of charity patients and to maintain records of those seeking medical service who should pay their accounts promptly.

The resident staff of the University Hospital, Augusta, was elected on April 19th as follows: Dr. T. R. Ponton, Superintendent; Dr. W. A. Todd, Chief Surgeon; Dr. David R. Thomas, Resident Physician; Dr. Leo G. Temple, Resident Pediatrician; Dr. W. Joseph Williams and Dr. Courtland Beeler, Assistant Resident Surgeons; Dr. R. K. Brown and Dr. John L. Bennett, Assistant Resident Physicians. Internes are: Drs. Edward S. Armstrong, Melvis O. Corbitt, Wm. B. Davis, Robert F. Ferrell, Robert L. Harris, Jr., Osmah Harrell, Henry C. Holliday, J. Zeb McDaniel, Claude E. Tessier and David M. Wolfe.

The officers of the Atlanta Alumni Chapter of the Alpha Kappa Medical Fraternity elected recently were as follows: Dr. Jas. K. Fancher, President; Dr. S. H. Shippey, Vice-President; Dr. B. Russell Burke, Secretary-Treasurer.

At a meeting of the Georgia Medical Society, Savannah, held on April 26th, the following titles of papers were on the scientific program: "Head Injuries", Dr. Julian K. Quattlebaum, Savannah; Case report, "Pyonephrosis, Diagnosis and Operation", Dr. H. Y. Righton, Savannah; Case report, "Renal Neoplasm", Dr. William Shearouse, Savannah.

The Fulton County Medical Society met at the Academy of Medicine, Atlanta, on May 5th. Drs. Earl Floyd and J. L. Pittman gave a case report, "Prostatic Resection"; Dr. E. D. Highsmith, case report, "Selective Methods of Skin Grafting—Lantern Slides"; Dr. H. R. Donaldson, case report, "Resection of Ileum for Multiple Fecal Fistulae"; Dr. W. S. Dorrough, clinical talk, "Treatment of Bartholin's Gland Abscess"; Dr. R. A. Bartholomew and Dr. R. R. Kracke read a paper entitled "The Relation of Placental Infarcts to Toxemia of Pregnancy—A Clinical, Pathological and Experimental Study Based on 1,000 Placentas".

Dr. and Mrs. E. M. McDonald, Jefferson, entertained the members of the Jackson County Medical Society at their home on April 29th. Dr. McDonald read a paper entitled "Child Welfare", which was discussed by Dr. Darrow, of North Dakota. Dr. J. C. Bennet, Jefferson, read a paper commemorating the fiftieth anniversary of the discovery of tubercle bacil-

lus by Dr. Koch. Dr. Harold P. McDonald, Atlanta, spoke on "Social Hygiene" before an audience of young men.

CLINIC TOUR PRICES REDUCED!

Recent drastic reduction in steamship rates will make even more attractive the already low prices of our Co-operative Clinic Tours this year. The prices allowing Tourist Class on the ocean have been reduced by \$47.50 and those providing First Class on the ocean have been reduced by \$130!

Unquestionably these rates—especially those for First Class—are too good to last. It is our opinion that it will be impossible, with the high grade of service maintained by the North German Lloyd, especially on these two supreme ships, to continue on the basis of the present prices and there are already rumors of a revision upward in the near future.

In the meantime, however, our tours may be bought at the current bargain rates. The wise ones know that these days of the great "depression" constitute an unprecedented opportunity to travel at minimum cost. Collections are bad anyhow—Why not take advantage of the present situation and go with us this summer?

OBITUARY

Dr. Robert H. Wicker, Rome; member; University of Georgia Medical Department, Augusta, 1878; aged 74; died of pneumonia at his home on April 11, 1932. He was one of the oldest active members of the Floyd County Medical Society. Dr. Wicker practiced medicine in Floyd and adjacent counties for thirty-two years. By his amiable and upright life he had endeared himself to hundreds of people. For a number of years his practice had been limited to urology. Dr. Wicker took an active interest in the affairs of his home city and community. Surviving him are two daughters, Mrs. L. K. Wallace and Miss Sara Wicker, both of Rome; six sons, C. P. Wicker, Rome; J. T. Wicker, Philadelphia; C. A. Wicker, Selma, Ala.; L. W. Wicker, Lubertown, N. C.; N. O. Wicker, Santiago, Cal.; R. H. Wicker, Ringgold, Ga. The members of the Floyd County Medical Society were honorary pallbearers. Funeral services were conducted by Rev. L. W. Collins, Pastor of the First Methodist Church, from Daniel's Funeral Home. Interment was in Myrtle Hill Cemetery.

Dr. W. J. Houston, Decatur; Georgia College Eclectic Medicine and Surgery, Atlanta, 1899; aged 67; died at his home on April 15, 1932. He retired from practice several years ago but continued active in civic and religious affairs of Decatur and DeKalb County until his recent illness. Surviving him are his widow, five daughters, Mrs. John Weckerling, who had just returned from Japan, where she had been with her husband, a Captain in the United States Army; Miss Mildred Houston, Miss Kate Hazel Houston, Miss Doris Houston, and Mrs. Harrold Milton, all of Decatur. Funeral services were conducted from the residence by Rev. D. P. McGeachy, Pastor of the Pres-

byterian church. Interment was in the Decatur cemetery.

Dr. Franklin Edward Williams, Vienna; member: University of Georgia Medical Department, Augusta, 1902; aged 51; died at a private hospital in Macon on April 25, 1932. He was born and reared in Ty Ty, Tift county. Dr. Williams was a prominent citizen of Dooly county and was recognized by the people as an able physician where he practiced medicine for twenty-seven years. He took an active interest in the welfare of his community and many friends held him in high esteem. His brother, E. J. Williams, a ranking Colonel in the United States Army, died last year in Washington. Surviving him are his aged father, W. R. Williams, Ty Ty; two sisters, Mrs. Frank B. Pickett, Ty Ty, and Mrs. Geo. D. Goddard, Milner; one brother, Thomas V. Williams, Tampa, Fla. Funeral services were conducted by Elder W. G. Kicklighter, Ocilla, from the Primitive Baptist church in Tifton. Interment was in the city cemetery.

Dr. John H. Phillips, Decatur; Baltimore Medical College, Baltimore, 1893; aged 66; died at a private hospital in Atlanta on April 16, 1932, after an extended illness. He had been prominent in the civic affairs of Decatur for many years, and was a former Councilman and Tax Assessor. Dr. Phillips retired from active practice about twenty years ago and devoted the most of his time to the development of real estate in Decatur. Surviving him are his widow, one son, Dr. W. P. Phillips, Decatur; two daughters, Miss Nan Phillips, Decatur, and Mrs. Gibson Broadhurst, Fitzgerald. Funeral services were conducted by Rev. D. P. McGeachy. Interment was in the Decatur cemetery.

Dr. Alex S. Cooper, Powelton; University of Georgia Medical Department, Augusta, 1880; aged 78; died at his home on April 23, 1932. He was a prominent physician and practiced in Hancock and adjoining counties for fifty years. Dr. Cooper owned large farming interests and was at one time a member of the Hancock County Board of Education and a Director in the First National Bank of Sparta. He was a member of the Baptist church and served many years as a deacon. Surviving him are his widow; four sons, W. M. Cooper, Decatur; I. B. Cooper, Haddock; P. A. Cooper, Atlanta, and W. J. Cooper, Powelton; two daughters, Mrs. A. C. Chapman and Mrs. W. M. Herndon, both of Powelton. Rev. Geo. S. Stead conducted the funeral services at the grave side at Powelton cemetery.

Dr. Clarence Mann Paine, Atlanta; Albany Medical College, Albany, New York, 1887; aged 72; died at a private hospital on April 28, 1932. He was a native of Clinton, New York. After receiving his degree in medicine, he came to Atlanta as medical examiner of the Metropolitan Life Insurance Company and held the position as such for thirty-nine years. Dr.

Paine was formerly President of the United States Board of Examiners of Pension Surgeons. He was a member of the Presbyterian church. Funeral services were conducted by Dr. J. Sprole Lyons from the funeral parlors of H. M. Patterson & Son. Interment was in West View Cemetery.

Dr. D. P. Nash, Lovejoy; University of Louisville School of Medicine, Louisville, Ky.; aged 81; died April 28, 1932, at his home after a brief illness. He practiced medicine in Henry and Clayton counties for more than fifty years. Dr. Nash was a leader in all undertakings for the upbuilding of his community. He took an active interest in the schools and was a prominent member of the Methodist church. Funeral services were conducted from the County Line Congregational Methodist church by the pastor and interment was in the churchyard.

PREVALENCE OF SYPHILIS IN GEORGIA AS INDICATED BY SEROLOGICAL TESTS

(Continued from page 206)

as to the incidence of syphilitic infection throughout the state. In this work the Kolmer method of the Wassermann procedure is employed routinely and the Kahn test in addition upon the request of the physician.

During the past year 46,893 specimens of blood and spinal fluid were received by our Wassermann Laboratory. We find that 9,988, or 21.3 per cent of these specimens showed positive reactions. It is true that some of these patients had previously shown positive reactions; specimens had been submitted for the purpose of checking on treatment and continued to show positive reactions. Yet on the other hand these may be offset by a number of other specimens from patients who present initial lesions of insufficient duration to detect the infection in the blood stream and also from patients with latent syphilis wherein sometimes it is impossible to detect the infection by any serological test.

In this connection it might be well to mention again the serological findings on 8,000 specimens which represented 72 per cent of the total negro population of one of our counties. We found 26 per cent of these specimens gave positive reactions. Adults showed 33 per cent and children under twelve years showed 7.2 per cent positive reactions.

The average of positive reactions as found by our laboratory, exclusive of the survey mentioned above, during the past five years representing nearly 200,000 specimens is 20.2 per cent. We believe that this average fairly represents the incidence of syphilis in the state and holds up before our eyes a picture of one of the problems of public health work.

DIGITALIS IN HEART FAILURE

In Maine M. J., September, 1931, Dr. Paul D. White, of Boston, asserts that life can certainly be prolonged and made more useful and happy by restoring and maintaining with digitalis the tone of the heart muscle which has begun to fail, whether or not the heart rhythm is normal. It is a wonderful drug, and even without rest, may restore normal heart function. Of course it must be given in the proper dosage.

"The administration of digitalis is still the most important measure of all in the treatment of moderate and marked degrees of congestive heart failure. It can be given rapidly by mouth or intravenously or intramuscularly. If there is not extreme urgency, a satisfactory plan for rapid digitalization is to give two pills or tablets, of $1\frac{1}{2}$ grains of digitalis leaf each, three times a day for two or three days, or three such tablets three times a day for one and one-half to two days (that is, for five or six doses).

Sometimes proper rest and digitalis are not sufficiently effective to dispel congestive failure and edema. It is then that one should turn to diuretics. The salts, like ammonium and calcium chloride, are hardly worth using, except infrequently as adjuvants to more potent diuretics. The purine diuretics, theobromine and its allies, are often effective. The most satisfactory member of this series I have found to be theobromine-calcium salicylate or theocalcin, given in the dosage of 15 grains (two $7\frac{1}{2}$ -grain tablets) two or three times a day for a few days at a time or longer."

ANGINA PECTORIS

Don C. Sutton, in his new book, "Diseases of the Coronary Arteries" (C. V. Mosby, 1932), states that in the treatment of angina pectoris the purines are of value for their effect of dilatation of the coronary arteries and thereby increasing coronary flow. While not as prompt in action as the nitrites, they have the advantage of more prolonged action and in most cases the effect is sufficient to reduce or abolish the anginal attacks.

Of the theobromine salts, theocalcin proved the most effective. The number of paroxysms of angina were often controlled by doses of $7\frac{1}{2}$ grains three or four times daily and the general strength of the heart muscle appeared to be gradually increased. In this dosage gastric irritation was extremely rare.

After a regime of theocalcin therapy the anginal patient was often able to take much more exercise and in many cases the attacks disappeared completely over periods of several years.

TECHNICAL EXHIBIT OF S. M. A. AT A. M. A. CONVENTION

Specimens of human milk fat were shown by the S. M. A. Corporation at the A. M. A. Convention in New Orleans, May 9 to 13. Physicians who attended the convention had an opportunity to see the close similarity of S. M. A. fat to breast milk fat in chemical and physical properties.

An interesting motion picture was shown at their exhibit entitled, "Infantile Spasmophilia".

S. M. A., an infant food resembling breast milk and containing cod liver oil, is claimed by its producers to be an automatic protection against rickets and spasmophilia, and the Committee on Foods of the A. M. A. has accepted S. M. A. and all its claims.

A new product, known as SMACO Hypo-Allergic Milk, developed especially for infants and adults sensitive to milk protein was exhibited by the S. M. A. people. Their Research Division showed a number of rare proteins and rare acids.

MERCK & COMPANY

Ground was recently broken for the erection of a research laboratory building at the works of Merck & Company, Inc., at Rahway, N. J. The project has been under consideration for some time. George W. Merck, president of the company, brought it to the attention of the stockholders a year ago. The directors have authorized proceeding with the work at this time, moved by the consideration that it will provide increased employment and that the facilities are urgently needed. The research activities of the company are at present being carried on in various parts of the large Merck plant—in many cases in make-shift quarters.

The building will be a Colonial type, brick structure, with a central section 40 feet by 80 feet, of two stories and basement. On each end of this central section will be two one-story wings, 50 feet by 100 feet. The wings will be connected with the central section by two one-story units, 10 feet by 38 feet.

The south wing will be devoted to carrying on pure or fundamental research, for which three laboratories will be provided. Another laboratory will be fitted for bio-chemical research, and there will be an adjoining incubator room containing a sterilizer, incubator, and other necessary equipment. In a pharmacological laboratory the physiological action of various chemicals will be investigated. Adjoining each of the laboratories will be offices for the chemists and pharmacologist in the section. There will also be a laboratory for micro-analysis, a micro-balance room, an ordinary balance room and an ice-room.

The north wing will contain a large chemical laboratory, 50 feet by 50 feet, suitable for twelve chemists carrying on applied research and development work. In this wing provision will also be made for carrying on studies on small scale plant operations—the step between research laboratory and factory.

The central section will contain on the first floor the offices and private laboratories of the research directors. In addition, there will be an optical and a physical laboratory; and a laboratory in which research will be carried out on the containers used for various chemicals.

Here also will be located the library, which will be an outstanding feature of the building. The ceiling runs up into the peak of the roof, giving full height for the stacks of books, which will also be carried into the attic spaces made available for this purpose. The arrangement of the library will provide for work tables and complete files of technical literature from all over the world. The work of the librarian and abstractors will be carried on in adjacent locations. The Patent Department offices will also be located on the second floor.

The basement of this section will contain a constant temperature and humidity room, a dark room, a combustion analysis laboratory, a glass-blowing room, and a carpenter shop. Provision has been made also

for a chemical and glass-ware storeroom, a machine room and a battery room.

Merck & Company, Inc.'s decision to carry out such an ambitious plan at this time adds another to the growing list of American chemical companies who have determined not to allow the period of depression to diminish their activities in research and technical endeavor. It is interesting to observe the manner in which the forward-looking companies are meeting the present situation, as contrasted with the all too prevalent attitude during 1921, which in particular affected chemical companies adversely and led many to discontinue research staffs and abandon all development work. Dr. Hugh Taylor, head of the Chemical Department at Princeton University, recently took occasion to point out that the continued pursuit of scientific investigation by industrial concerns is one of the most encouraging signs in these times.

GOLF, AND INFANT FEEDING

It is possible to play over the entire course with a single club and bring in a fair score. But playing with only one club is a handicap. The best scores are made when the player carefully studies each shot, determining in advance how he is going to make it, then selects from his bag the particular club best adapted to execute that shot.

For many years, Mead Johnson & Company have offered "matched clubs", so to speak, best adapted to meet the individual requirements of the individual baby.

We believe this a more intelligent and helpful service than to attempt to make one "baby food" to which the baby must be adapted.

MERCUROCHROME --- 220 SOLUBLE IN OBSTETRICS

A statistical study of a series of over 9000 cases showed a morbidity reduction of over 50% when Mercurochrome was used for routine preparation.

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PRESENTATION OF THE "BADGE OF SERVICE" TO THE PRESIDENT*

JAMES M. SMITH, M.D.
Valdosta

It is my happy privilege, Arthur, to present to you on behalf of the members of this Association, a reminder of our good-will, esteem and friendship. I wish I could do this in some new and novel way. For ages past the lover has sought a better way to declare the ardor and sincerity of his affections other than in the old familiar words "I love you." But there is no better way. I, therefore, come this evening with a simple message, simply told.

The members of our profession delight to honor you. This is so, because in point of ability and character you deserve it. You share in generous measure our individual affections. This is true, because, whether consciously or not, you steal into our hearts and take them with you.

It is our earnest wish that you may enjoy many years of prosperity and happiness. As an evidence of our love and affection we beg that you accept this small but significant gift, the "Badge of Service" of the Medical Association of Georgia.

*Presentation address before the Medical Association of Georgia, Savannah, Ga., May 18, 1932.

The United States Department of Agriculture through its office of information announces that the Food and Drug Administration has noted a recent material increase in the number of manufacturers who are labeling cosmetics with claims for the prevention or cure of disease, thereby rendering the goods subject to action under the Federal Food and Drugs Act. Tooth pastes, face creams, hair dressings, shaving soaps, and other cosmetics labeled with claims for the prevention, mitigation, or cure of disease become subject to such regulation, while normally are not to be classed as drugs.

ACCEPTANCE OF THE "BADGE OF SERVICE" BY THE PRESIDENT*

ARTHUR G. FORT, M.D.
Atlanta

Doctor Smith, Ladies and Gentlemen:

A few times in an officer's life he is granted certain personal privileges. That of choosing a certain member to deliver the "Badge of Service" is one of these occasions. In determining who to invite to represent the Medical Association of Georgia in performing this loving service, many things have to be taken into consideration, so I remembered the slogan, "Safety First." Therefore, I chose one who had been with me "particeps criminis" in so many medical and social affairs during the past twenty-seven years he dared not but be guarded in his remarks. As men grow older they appreciate character more and more, so I chose who, to me, is my ideal of a man, a doctor, a gentleman and a friend.

Our Association, through this ceremony, expresses to us during our lifetime its appreciation and I think it is well to:

"Keep not words of appreciation
Friends, until we are dead.
But let life's human sweet praises
Now for the living be said.
Words of love dropped on unheeding ears,
Alas, are such useless things,
Wreathed flowers, friends and tears
Even no response e'er brings.
But speak the kindly words, and all
Wreathed flowers bring now—
Wait not for casket and sombre pall,
Or for death-chilled brow;
We need the fragrance of the rose
The lily's gleaming purely white—
Oh, give them now, ere life's close
Sets our sun in endless night."

This token, I accept with deep appreciation, though unworthy of it, and will ever wear it with pride.

*Address of acceptance before the Medical Association of Georgia, Savannah, Ga., May 18, 1932.

IN MEMORIAM*

A. J. MOONEY, M.D.
Statesboro

At the meeting of the Association held in 1931 a resolution was introduced by Dr. M. A. Clark and adopted by the Association to hold memorial exercises for the members who had passed on during the year.

In accordance with the resolution we today observe its spirit. It is peculiarly the way of fate and the immutable law of nature that the author of the resolution should be one whose passing we mourn and whose memory we hold dear.

As we call to our memories the scientific lustre that they brought to our assemblies; the unerring parliamentary guiding hands that steered us so safely through the shoals of uncertainty; the smiles and warm handshakes that diffused cheer, good-fellowship, and the spirit of fraternalism so characteristic of our annual meetings; it is with saddened hearts, yet with the sadness tempered by the happy recollections of them as they lived and were in our midst, that we record the names of those who but a short year ago were amongst us:

- Arnold, Thomas L., Kingston, March 3, 1931.
 Brown, Millard S., Fort Valley, May 8, 1931.
 Carter, James Nottingham, Savannah, December 6, 1931.
 Clark, Mallie Adkin, Macon, February 6, 1932.
 Currie, Malcolm M., Alston, February 12, 1932.
 Daniel, James Clarence, Decatur, May 15, 1931.
 Davidson, Arthur Chase, Sharon, August 20, 1931.
 Dowman, Charles Edward, Atlanta, November 14, 1931.
 Googe, William R., Abbeville, August 20, 1931.
 Harbin, Samuel R., Canton, January 20, 1932.
 Harison, William Henry, Augusta, April 27, 1931.
 Henderson, Daniel Tillett, Macon, December 31, 1931.
 Holliday, William Zellers, Atlanta, February 20, 1932.
 Logan, A. J., Plains, May 12, 1931.
 McLain, Charles F., Calhoun, December 26, 1931.
 McMaster, David Edwin, Tennille, January 8, 1932.
 Ray, Alonzo Terrell, Sharon, November 24, 1931.
 Richardson, Charles Hyatt, Montezuma, August 17, 1931.
 Sawyer, Annie Laurie, Atlanta, January 20, 1932.
 Sessions, James Henry, Homerville, August 12, 1931.
 Smith, William W., Clyn, November 29, 1931.
 Suggs, Clarence Eugene, April 15, 1931.
 Thrash, Elmore Callaway, Atlanta, June 22, 1931.
 White, Alfred S., Flovilla, December 24, 1931.
 White, William S., Fort Valley, June 12, 1931.

- Wicker, Robert H., Rome, April 11, 1932.
 Williams, Franklin Edward, Vienna, April 25, 1932.
 Williams, Kirby S., Thomaston, December 13, 1931.
 Vaughn, William B., White, November 10, 1931.

Thus, by the honor roll we see that the hamlet as well as the metropolis has felt the loss of their best citizenry. Perhaps none other is measured by as many yardsticks as the medical profession and in no other profession is the qualification higher.

He must have some of the requisites of priesthood; for he contacts the innermost, most sacred relation of human life, and in his ears are confided the secrets that touch the most vital parts of life, home, and society.

He must be a philosopher; for his observation of human life, temperaments, and passions must have instilled in him a high degree of tolerance for their shortcomings and yet, at the same time, make him appreciate the goodness that is also present.

Also, by the same token of confidence and esteem, he must be a guiding spirit in his community; one to which his fellow citizens look for advice and instruction.

He must advise the weak and counsel the strong; he must pity the poor and turn to them a sympathetic ear for their needs. He must console in the hour of sadness; he must rejoice with them in the hour of gladness. Present and administering during the hours of travail, he endears himself to a grateful home.

Watching and alleviating during the times of illness, pitting professional skill against the advance of the last great Messenger, he earns for himself the title of "family physician" and, as such, second only to the Great Physician.

As a token that the lamented departed have kept the faith, memories of them are indelibly stamped on the hearts and minds of those they so faithfully served; their names are to be found in the records of our churches, colleges, and schools; on the official records of municipalities; and on the roll of honor in service to their government and country.

And now, as we come to our own inner circle of medicine to pay this tribute it is with a feeling that I am treading on sacred ground as I carry you back through the years of hallowed history when our Association had its inception eighty-three years ago.

How rich in tradition it has become!

Crawford W. Long had but a few years before given to the world the greatest discovery for the relief of pain since the birth of our Savior.

Then, as now, when a momentous task was to be performed; when structural foun-

*Tribute to deceased members before the Medical Association of Georgia, Savannah, Ga., May 19, 1932.

dation for an organization was to be laid, such as will withstand the test of time and human dissensions, and having withstood them, emerge with added lustre, we find that men came forth who were equal to the task.

How brightly shines in the annals of the Association when traditions were in the making, the names of medical heroes such as a Dugas, a Ford, an Armstrong, an H. V. M. Miller, a William Abram Love, a W. H. Elliott, a Westmoreland, a Charlton, a Waring, a Dunn, a Calhoun, a Battey, and a host of others equally illustrious.

To recall the great traditions of the early sixties; of the days of the reconstruction and the lean years that followed—times that called for the best in human stamina and tried men's souls—is only to recall the memories of them who at that time composed our Association.

So well did they build and so high was the standard of organization they handed down to us that men of high scientific attainment and great executive ability were needed to catch the mantle handed down by them.

The men to whom we pay tribute today were equal to the occasion.

Dr. M. A. Clark, of Macon, served us as President. He also wrote a code of ethics for the Association which was a masterpiece and until today is our recognized standard; probably none of our membership was more familiar with parliamentary law and usage than he.

In addition to his duties to our profession, he was a trustee of Mercer University; he stood high in religious councils and was a devout Christian.

A few years later Dr. Elmore Callaway Thrash became President. Who among us does not recall that genial man? Always having a word of cheer, he endeared himself to the Association and acquitted himself splendidly; his Presidential address on "Pneumonia" is still a standard on that subject. He was on the faculty of the Medical Department of Emory University, and his striking personality endeared him to the student body.

Always strong and healthy in appearance to his friends, his passing was a shock and surprise.

I would fall far short of my duty if I failed to recount the fame and glory in the field of neurosurgery that Dr. Chas. E. Dowman of Atlanta brought to the Association, to his city and State, as well as himself.

He wore the uniform in the World War; and on account of his aptitude and preparation was especially trained in neurosurgery. After a career that gave him such eminence that he was classed as one of the greatest

neurosurgeons in North America, his career was cut short by an infection which occurred during an operation.

He was also on the faculty of Emory University School of Medicine.

And the greatest tribute—he was a Christian.

Would that time would permit me to inscribe in detail the beautiful things in the lives of the remainder of our colleagues who have passed on.

They are missed today when we look and fail to see their faces. Peace to their ashes!

The candle of time burns low and we come to the last words of tribute.

Our association with them; the spirit of good-fellowship which surrounded them as a halo; the scientific heights which they attained; the beautiful grace and dignity which they gave to our Association is to us a loving benediction. They were not afraid of death; they stood in its presence on so many occasions. Their philosophy of life, learned from years of observation, had robbed it of its terrors and mystery. They had learned that "Death, M.D., is the world's old family doctor, brusque, abrupt, imperative; the ignorant stand in awe of him; the strong jest with and about him; the old love him. He is good to the poor; gentle with children; uses no drugs; practices no surgery; and has but one invariable prescription—perfect rest.

The grave is his hospital where, in ample time and infinite leisure, the mother power of the earth croons over shattered nerves and aching bones and at last lulls them free of fret and pain."

Fancies and temptations they must have had; for such comes to the well-rounded life; the life in which resistance is necessary to develop strength; sorrows to make the joys sweeter; shadows to make the sunshine more welcome; and disappointments to develop stamina.

At the nation's capital I have stood with uncovered head at the tomb of the Unknown Soldier as notables paid tribute at the common shrine of the nation and experienced that thrill that cannot be expressed in words descriptive of the love and admiration of a nation.

Throughout our State in the cities of the dead are the tombs of doctors—shrines in the minds and hearts of those that loved them during life; shrines which for aye will keep fresh in their minds the love and admiration in which they were held.

Their earthly remains rest beneath the soil of the State they loved so well.

There, free of fret and pain, they will rest in the bosom of the great common Mother until the morn of the Resurrection.

"Fades the light; and afar
Goeth day; cometh night;
And a star shall keep watch
While they sleep."

A REVIEW IN TRAUMATIC SURGERY*

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In a survey of the field of medicine and surgery, we find that there is no specialty that has developed so rapidly as that of traumatic surgery.

Since the war, which gave us much new information regarding diagnosis, operative procedure, and aftercare, we have been forced by the increased demands in this particular branch of surgery to raise our standards, and interest surgeons of the highest type. Until recent years, industrial work was looked upon as a stepping stone for something better. Young men out of college, with little experience, were chosen to handle this class of surgery, and very few general surgeons allowed this class of work to enter their operating rooms.

We must realize that traumatic surgery is the oldest of all surgery. Still in modern times, we must give it the prominent place as the newest surgery, brought about by the progress of the human race in its advanced methods of travel and industrial mechanics, all of which make speed the essential factor in the progress of civilization, thereby entailing greater hazard to life and property.

Unlike the surgeon who plans and premeditates before opening an abdomen, the traumatic surgeon, with his first operative attempt, may be at the beginning of his troubles. Watchful waiting is necessary in many cases before he is sure that there will not be many succeeding operations. One of the greatest assets to the traumatic surgeon lies in his ability to handle his patients. He must have the confidence and cooperation of his patients in order to attain the best mental, as well as physical, results. The traumatic surgeon must be tender, careful, sympathetic, very thorough in detail examination, and

should record most accurately every incident connected with the injury. Records must be carefully preserved for future reference. He must not look upon every patient as a malingerer, neither must he neglect the patient who places little interest in the severity of his injury. The art and science of traumatic surgery must be learned slowly, step by step, and craftsmanship must be perfected along with scientific knowledge that comes with study, practice, and mature judgment.

Fractures and Dislocations

The subject of fractures and dislocations constitutes one of the important fields of traumatic surgery. However, they are not so frequent as infected wounds of soft tissues, but deserve a more thorough consideration, due to the fact that deformity and marked impairment of function may result from improper diagnosis and inefficient treatment.

First, diagnosis is essential to proper treatment and requires a roentgenogram to determine what you have to deal with, and a second picture at a later date to ascertain whether or not proper correction has been made. I am sure frequent x-ray exposures, when done properly, are indispensable. They are the only positive way of checking progress and knowing what methods to pursue in furthering the progress of the case.

It is just as important to give immediate care to fractures and dislocations as it is to give immediate care to an acute abdominal condition. The earlier your reduction is made, the less trauma you will have and the less likelihood of infection, hemorrhage, and other complications arising as the result of delay. Too often we wait for subsidence of swelling, when, as a matter of fact, there would be less swelling and trauma if the work had been done early. Reduction of fractures and dislocations is not accomplished by setting the bone, but by the traction on muscles, tendons, and ligaments. This work should not be attempted except under thorough anaesthesia, either local or general.

Reduction having been attained and proved, then we must consider the maintenance of reduction. This is by splintage and, as there are so many advocates of different methods of splintage, it would be difficult to enu-

*Read before the Chattahoochee Valley Medical and Surgical Association, Albany, Ga., July 14, 1931. Abstract.

merate them. The plaster cast, in my opinion, is the most valuable, but requires skill in its application.

Traction and suspension are especially valuable in the treatment of fractures of certain long bones, such as the humerus, tibia, and femur; while skeletal traction is indispensable in the treatment of fractures of the shaft of the lower femur and lower third of the tibia. Many fractures are complicated by comminution of bone which renders it almost impossible to give effective treatment without open reduction and debridement. Material that is nonabsorbable should not be used to maintain reduction except in rare and exceptional cases. Stepping or notching of bone, or pegs properly made, are exceptionally easy to use and leave no foreign material to invite infection and nonunion.

Long immobilization is one of the most frequent causes of poor results. A small and insignificant fracture with prolonged immobilization will invariably lead to a long disability.

As stated before, if satisfactory position cannot be attained by manipulation, an open operation should be performed. If an open operation is to be performed, it should be done early. If deformity has existed for some months and callous has formed, I have found it much better to defer operative procedure until the callous has become solidified, and then do an arthroplasty.

All fracture cases should be inspected every few hours for the first two days and then the patient instructed to mention immediately any undue pain, throbbing, blueness, swelling, or numbness of the toes or fingers. The fingers should always be left free to provide for motion.

The Harvard Medical School, in conjunction with the Massachusetts General Hospital, has made an attempt at classifying end results in its fracture service; giving a uniform method of examination and a simple scheme for recording the estimations necessary. This seems to me very essential in order that physicians may understand each other better. The words "good", "fair", or "poor" are not adequate. The use of the letters "A, E, F," signify anatomical results, economic results, functional results. The use of the figures 1, 2, 3, 4, after each letter gives the percentage value, allowing a range of 25 per cent for each figure.

GROSS RATING

Fracture results are estimated at the end of one year.

Uniform methods of examination and a simple method of recording the estimations are necessary.

The use of the letters A E F signifies: Anatomical Result, Economic Result, Functional Result.

The use of figures: 1, 2, 3, 4 (A³ E³ F⁴) after each letter gives the percentage value to the final estimation, allowing a range of 25 per cent for each figure.

1—25% 2—50% 3—75% 4—100%

ACCURATE RATING

There are four factors which make up the total of an *anatomic* result:

(1) Length; (2) Alignment (total) by inspection and measurement; (3) Apposition, and (4) Angulation, judged by roentgenograms taken in two planes.

Suppose a patient has normal length, 100 per cent; poor alignment, 75 per cent; half apposition, 50 per cent; 10 to 15 degrees angulation, 50 per cent. Total, 275, or 68 $\frac{3}{4}$ per cent.

This patient would receive A³ because 68 $\frac{3}{4}$ per cent is nearer to 75 per cent in the gross rating.

There are four factors which make up the total of an *economic* result:

(1) Same work as before, lighter, or heavier work; (2) Same pay as before, more or less; (3) Same hours of work, more or less; (4) Same volume of work, more or less.

Suppose a patient has a lighter job, 50 per cent; gets three-fourths former pay, 75 per cent; works one-half as long each day, 50 per cent; turns out one-third the volume of work, 33 per cent. Total, 208, or 52 per cent.

This patient would receive E².

There are four factors which make up the total of a *functional* result:

(1) Total functional result, subjective (asking the patient); (2) total functional result, objective (by observation), muscle strength and staying power; (3) Joint movement above the fracture, as compared to the other side; (4) Joint movement below the fracture, as compared to the other side.

Suppose the patient says he is as good as before, 100 per cent; on observation, he has less power and movement on fractured side; can move the part (walk or use his arms) about three-fourths of that which he did before, 75 per cent; his joint above has limited motion, estimated at one-third off normal, 66 per cent; his joint below is normal, 100 per cent. Total, 341, or 85 per cent.

This patient would be rated as F³.

Added up, that patient would receive A³, E², F³.

If the medical fraternity would adopt a rating system, there would be fewer misunderstandings with compensation boards, who now have their own rating scheme which lends little credit to our profession.

Infections of the Hand and Arm

Infections of the hand and arm may be roughly divided into: A. Simple localized infections, such as boils, felons, paronychia,

etc.; B. Deeper or more involving infections, as tenosynovitis, abscesses in the deep fascia spaces of the palm, acute lymphangitis, etc.

I will speak very briefly of the best methods of treatment of the commoner infections. Correct and early diagnosis is of great importance from the standpoint of treatment as well as ultimate functional outlook.

Felon, usually found involving the pulp of the finger tip, requires in every case incision as soon as the diagnosis is made. While most authorities advocate lateral incision, Babcock says a free median incision is best, as it never causes a permanent paresthesia. Following incision moist heat is used for 48 hours. Drainage may be indicated.

Paronychia, if early, requires drainage by simple lateral incision. If late, it is best to make a midline incision down the nail and avulse each half of the nail toward the midline, followed by lateral incision by the nail bed. Field block by novocain is essential.

Abscess in the thenar space is treated by incision on the dorsum of the hand parallel to the index metacarpal. A small hemostat is inserted into the abscess, and drains of rubber tissue inserted. Abscess in the middle palmar space is treated by dorsal incision between the ring and middle metacarpals. Occasionally a palmar incision distal to the superficial palmar arch is also required.

Tenosynovitis is characterized by exquisite tenderness over the sheath involved, the finger is in flexion, and exquisite pain is encountered on attempt to extend the finger. After a few days the pain may subside. Briefly, treatment consists of lateral incision between the joints of the fingers at the points of greatest pain and swelling. Incisions in the palm of the hand over the sheaths or above the annular ligament of the wrist may be indicated if the infection has gone up this far. When the sheaths are identified and certainty of their infection established, they are cleanly and delicately incised. The wound is left open with drains of vaseline gauze or gutta-percha extending down to the sheath. The part is elevated and heat applied.

Lymphangitis is caused practically always by the streptococcus, and is a widespread involvement of the lymph channels with result-

ing pitting edema, and usually the regional lymph glands are enlarged and tender. Kanaval says few give rise to local suppuration, and he divides lymphangitis into four clinical types, depending on the severity. Griffiths gives a simpler classification: 1. A localized fugitive process. 2. A rapid extension to the deep planes. 3. A rapidly fatal septicemia. Treatment for lymphangitis is both local and general. Local treatment consists of arm baths, passive hyperemia, immobilization of the part, and complete rest. Incision is only indicated when suppurative complications occur. Heat is our greatest local aid. General symptomatic treatment is of the greatest importance. Absolute rest in bed, fluids forced to 4000 to 6000 cc. daily, glucose and fruit juices being the primary things to use. The bowels should be open. Drugs, such as quinine, whiskey, urotropin, and silver salts, in the majority of cases, will be found of no value. Vaccines are of no value. Kanaval feels that an adequate serum has not yet been developed, but looks with some hope to the polyvalent streptococcus serums. On the other hand, Griffiths believes serum of great value at the present time, saying, "It is in this condition (Lymphangitis) where the antistreptococcus serum globulin of scarlet fever produces such dramatic results—I have used this serum in a number of cases and I have been impressed with the results produced." He advises giving 30 cc intravenously, diluted one to three with normal saline. Finally I wish to emphasize that incision and drainage should be made only where you are reasonably sure that pus exists. "Ill-directed surgery is more apt to increase and extend destruction of tissue than to check the spread of bacteria," says Homans.⁴ Abscesses should always be drained, of course, and the incision should be in the most dependent part. As a rule, drains should not be left in over 48 hours. Hand and arm should be put in the position of best function while at rest, splinting if necessary, and the early use of judicious massage is to be commended for its value in restoring function. Systemic aids have been mentioned under the head of lymphangitis.

We may conclude with Griffiths, "Rest your knives, probes, and fingers once you

have found pus. It is surprising how quickly a septic finger will heal when the part is placed entirely at rest."

The Treatment of Burns

The modern methods of treatment of burns consist of moist applications, paraffin films, and tannic acid. Of these, the last is rapidly assuming preeminence. Treatment with moist applications has been used for years and many antiseptics have been used and discarded. First degree burns need only a moist, cold dressing of boric acid, salt solution, or 10 per cent sodium bicarbonate solution. Blisters should be opened aseptically. If there is evidence of infection, DaCosta advocates acriflavine 1:1000. A one-half per cent solution (aqueous) of picric acid is also good and can be painted over the area. Ravdin and Ferguson cover the burned area with gauze saturated with one-half per cent solution of novocain with 10 mm. of adrenalin to each ounce. These packs are used from 48 to 96 hours and are then followed by spraying the burn, which is kept under electric lights, with a fresh two per cent solution of dichloramine-T. Sterile olive oil or carron oil is good, but should be used in superficial burns only, and then only after healing is well started. Babcock has pointed out the many important objections to their use earlier.

Covering the burn with a thin coating of paraffin has produced good results. The surgeon should first satisfy himself that no possibility of infection is present. The part is not scrubbed, as any remaining epidermis is much desired. Clothing and debris are removed and the part washed with saline or boric acid, or sponged gently with an ether sponge. Burnol, consisting of paraffin molle 25 per cent, paraffin durum 67 per cent, olive oil 5 per cent, oil of eucalyptus 2 per cent, and beta-naphthol one-quarter per cent is melted at 48° C. and applied by an atomizer or a sterile brush. DeTarnowsky uses a preparation of white precipitate of mercury five per cent, white wax 25 per cent, zinc oxide ointment 70 per cent. In paraffin films he advises that the burn be covered with the liquid by application with a cotton mop, to one inch beyond its mar-

gin, without rubbing. This is followed by a thin layer of absorbent cotton over the wound and this is rapidly covered with one or two layers of paraffin. A thick layer of cotton and gauze bandage completes the dressing and the part is immobilized. He advises that except in first degree burns, the dressing be removed daily, but warns against wiping off the secreting surface for fear of destroying new cells. When a rosy granulating surface is obtained, grafting may be done if this is thought necessary.

The more modern tannic acid treatment of burns originated in 1925 when Davidson acting on the theory of absorption of a toxic substance from the burn, as being the cause of the alarming symptoms, as demonstrated by Vogt and Vaccarezza, Robertson, Boyd and Pfeiffer, first advocated the use of tannic acid, which by its protein precipitating property, would stop such absorption from the burned area. Up to this time advocates of this theory had attempted to arrest such absorption by debridement, or slow the rate of absorption by the use of Vaso-constrictor drugs, such as adrenalin. Davidson gave his patients morphine, cleaned the area, applied sterile dressings, and soaked these with a 2½ per cent solution of tannic acid. This was continued at intervals of three or four hours, for twelve to twenty-four hours, until the burn assumed a light brown color. The dressings were then removed and the part exposed to air and warm dry heat by means of electric lights. His series of cases showed less toxemia than usual, analgesia was striking, and scar formation was less. Since that time a slightly better technic has been developed, and in November, 1930, he summarizes the present method as follows:

"The child is placed in a light tent on sterile sheets, all blebs are opened and all loose tissue removed and the burn cleaned without trauma. A spray of a five per cent aqueous solution of tannic acid (freshly made up) is then used every fifteen minutes until the surface is a light brown color. This usually takes about two hours. Fluids are forced, and since it has been shown that the blood sugar is frequently high in burns, saline instead of glucose is used."

In second degree burns, "the coagulant acts

as a splint and healing takes place beneath it and is generally complete at the end of two or three weeks." No effort should be made to remove the coagulated tissue sooner, for the exudate of serum which occurs increases absorption and furnishes a nidus for infection to occur. At three weeks if it is not separated, the burn is probably third degree, and small areas of the coagulant should be soaked off at a time. The granulating wound should then be grafted at the earliest possible date, usually in the third or fourth week, and he advises pinch grafts, even on an infected surface. Contractures are more likely to occur when granulation tissue is allowed to pile up.

Advantages of the tannic acid treatment are well summed up by Homans as follows: "that it relieves pain, usually within one-half hour, that at the same time it diminishes shock, that it is relatively easy of application, requiring no elaborate dressings, that it lessens greatly the formation and absorption of the toxic products of the burn, and it diminishes the chances of infection. The care of the patient is simple . . . finally the tanned surface is cast off leaving a reasonably healthy surface. Even third degree burns are far less intractable than usual"—a fitting tribute to this excellent treatment.

This method has met with uniformly good results. Herzfeld reports a drop in mortality from 38 per cent to nine per cent and says, "The most striking result of this treatment is the fact that in the majority of cases the stage of toxemia is entirely absent or at most so slight as to give rise to no anxiety . . . in many cases one has no anxiety about the patient after the first twenty-four hours, and the patient himself is comfortable and placid."

Beekman reports a series of 320 cases treated by open air, paraffin films, sodium bicarbonate baths, or combinations of these, and a second series of 114 cases treated by the tannic acid method at Bellevue Hospital. The mortality dropped from 27.8 per cent to 14.9 per cent. The rationale of the treatment is seen by his analysis of the cases. The mortality during the first twenty-four hours, i.e., the period of death from shock, did not

vary markedly in the two series. During the period of toxemia, i.e., from the second to the tenth day, the mortality fell from 17.8 per cent to 5.3 per cent. From the tenth day on the mortality again did not vary markedly. This is what we would expect. Harris at the Sick Children's Hospital, Toronto, reports a drop in mortality from 26.16 per cent to 12 per cent (reference by Davidson), and Davidson, in 1930, reports an additional series in which he shows that whereas formerly in the first thirty-six hours his mortality was 25 per cent, it is now 0 under the new treatment, and during the period from thirty-six hours to eight days, the mortality has dropped from 33 per cent to 17 per cent. (These are percentage figures for his total mortality.)

Only a few remarks need be added. The tannic acid solution must be freshly made up. A five per cent solution has proved most satisfactory. The solution should be applied until a light brown color is attained. The area must not be moistened by boric acid solution as this tends to cause absorption and toxemia. The method is best used inside of twelve hours. After twenty-four to thirty-six hours no coagulum will form.

Patients with large burns are usually in shock when first seen, and the patient and not the burn must be treated during this period. Underwood has shown that great concentration of the blood occurs following extensive burns and believes that all the severe symptoms are due to this factor alone. While we do not agree with him about the latter, he has undoubtedly proved the former, and we believe with him that fluids should be forced to 6000 to 8000 cc daily. He says, "Too much emphasis cannot be placed on this point of continuous fluid administration." In all severe burns the immediate administration of 1000 cc of saline intravenously is definitely indicated, and following this fluid should be given by mouth, by rectum, under the skin, or intravenously, continuously, and in the amount specified above, for twenty-four to thirty-six hours or longer.

Surgical Antiseptics

Surgeons differ as to the kind of antiseptics that should be used for the prevention of

infection. However, all of us in this field of work agree on the prime importance of the immediate application of an antiseptic to a wound. Soap and water, alcohol, or gasoline are indispensable in cleansing the area around the wound of grime, grease, and dirt, but the field of injury should be shunned and some antiseptic used on the open wound.

Eighty per cent of surgeons use some form of tincture of iodine and the fact that it is used so universally by the majority of surgeons is an argument in favor of it as the antiseptic of choice in emergency surgery. Advocates of iodine differ as to its strength, varying from three to five per cent. The majority use a five per cent strength, diluted with alcohol. Glycerine has been combined with iodine by some as the means of preventing irritation. One of the greatest objections to the use of iodine is its irritation to raw surfaces. Whatever antiseptic is used should be applied to the open wound as soon as possible.

Doctors Carrel, Sherman, and others used Dakins solution during the war, and through their results convinced the entire profession that the continuous use of this antiseptic, in badly infected wounds, was one of the greatest advances made in war surgery. The development of this chlorine antiseptic saved thousands of wounded and infected soldiers. There is no doubt but that it is the best antiseptic that we have at hand today for deep infected wounds. This solution must be prepared by rule and checked up at a laboratory, and the wound must be flushed with the solution at regular intervals, day and night. One must be properly equipped and well drilled in the correct methods to use, otherwise your efforts will end in failure.

Some have arrived at the conclusion that seven per cent tincture of iodine in alcohol is most effective in the sterilization of unclean human skin. On the other hand, these same advocates make the statement that the aqueous solution of mercurochrome is inefficient as a disinfectant for the unbroken skin. However, mercurochrome seems to meet all necessary requirements for the skin, when combined with alcohol and acetones,

referred to as aqueous-alcohol-acetone solution, two per cent strength, and compares favorably with iodine in strength from three and a half to seven per cent.

Most of these agents are not suitable for mucous membrane on account of their destructive action and painful irritation. Where there is injury to mucous membrane, boric acid solution, argyrol, and protargol are the antiseptics of choice.

Where there are punctured wounds or soil contamination, there is no excuse for anyone to overlook the importance of tetanus antitoxin or delaying in its administration.

I should not fail to mention in approaching the close of this subject that mercurochrome, given intravenously, is a valuable agent in septicemias. In administering this drug one should be careful not to overdose, nor give too frequently, but be governed by temperature and other clinical manifestations. Salivation and tubular hemorrhagic nephritis may result from a too frequent administration, or too large a dose. Five mg. per kilogram of body weight or twenty cc of one per cent solution to one hundred pounds body weight seems the best dose.

The protective forces of nature, inflammation, fever, phagocytosis, are our best antiseptics. No antiseptic can reach bacteria which have already penetrated into the deeper tissues, or which have been carried to a wounded portion of the body by the blood stream, and their use under such circumstances is not only worthless, but distinctively harmful.

Case of Complete Unilateral Traumatic Ophthalmoplegia, Externa and Interna, by Dunbar Roy, in Tr. Am. Ophthalmol. Soc., 1931.

The author has found but twenty-five cases of this condition in the literature, and in these cases there was a notable absence of any mention as to the final results obtained by treatment, in fact very little was said as to the method of treatment used. The review of the literature is exhaustive but not exhausting.

In the case under discussion, a young man, while preparing to take a swim in a small stream, was pushed from the bank into the water, and received a deep cut below the left eye. Twenty-four hours later there was complete left ophthalmoplegia and ptosis. Ten days later there was complete optic atrophy, which remained. With diathermy and potassium, the other signs and symptoms cleared up within six months.

—L. M. B.

TRANSURETHRAL PROSTATIC RESECTION VERSUS OPERATIVE PROSTATECTOMY*†

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There has been a great deal of favorable publicity recently given the subject of prostatic resection in the various medical journals. From our experience with the procedure we feel that some of the enthusiasm is warranted but not without the most profound respect for the principles laid down in prostatic surgery and resection should be done only in very definite types of vesical neck obstructions. The present paper purposes to compare the value of surgery with that of prostatic resection in relieving prostatic obstruction and an attempt made to relegate resection to its proper place.

To begin with, let us preface our remarks with a brief consideration of the evolution of the knowledge of the enlarged prostate.

Frequency

After middle life 34 per cent of all males, according to Wesson¹ have obstructing lesions, though only one-half of this number seek relief from their symptoms. Fully 70 per cent of the obstructions consist of prostatic hypertrophy or carcinoma, and the rest are mostly median bars or contractures. It is said that four men out of every hundred that reach the age of sixty have carcinoma of the prostate.

Etiology

There is still some dispute as to the cause of prostatic hypertrophy. Young² is of the opinion that the process is a hyperplastic one. Caulk³ states that the majority of prostatic enlargements are inflammatory over-growths. Motz and Perearnau⁴ advance the theory that the large adenomas, which constitute most of the so-called hypertrophies in old men, are not from the true prostatic tissue, but that they arise from the mucosal or sub-urethral glands. Lower has recently advanced a theory as to the probable cause of prostatic hypertrophy



Figure 1

which has something to do with the pituitary-testicular-prostatic relationship. With such a variety of opinions we do not feel justified in drawing definite conclusions as to its etiology at present.

Prostatic Pathology

In dealing with old men who present themselves for examination and treatment for obstructing lesions, one should bear in mind that not all of them have prostatic hypertrophies. It may be a median bar with prostatic congestion; or, it may be a stricture—old men do occasionally have strictures with resulting prostatic congestion. However, hypertrophy, according to Randall⁵ plays the greatest role in producing an obstruction, being present in 71.1 per cent of the cases that he studied at post mortems. 18.2 per cent were fibrous median bars and 5.4 per cent carcinomas. Of the prostatic hypertrophies 54.5 per cent were small or early hypertrophies, while 33.3 per cent were classified as medium and 12.1 per cent as extremely large hypertrophies.

All hypertrophies are not confined to the lateral lobes. The median lobe alone (the glandular tissue that lies below the floor of the urethra and passes from one lateral lobe to the opposite), is occasionally the one involved and such a condition is called solitary posterior commissural hypertrophy. Although this enlargement frequently is found in conjunction with lateral lobe hypertrophy, occasionally it alone causes the obstruction. This condition is most frequent between the ages of 50 and 60. Of the 54 cases of prostatic hypertrophy examined by Randall⁵ between the ages of 50 and 60, 16 showed only solitary posterior commissural hypertrophy.

*Read before the Seventh District Medical Society, Rome, Ga., April 6, 1932.

†The illustrations with this article represent the opinions of the authors.

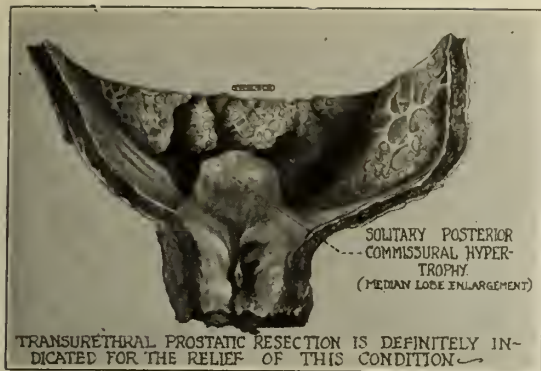


Figure 2

As stated above, median bars sometimes produce an obstruction and must not be confused with hypertrophy. They are sometimes called "fibrous bars" and are vesical orifice obstructions due to fibrotic contracture. The majority of these cases occur secondarily to some inflammatory reaction, a chronic prostatitis and seminal vesiculitis being responsible. According to Wesson⁸ the old theory that gonorrhea was incitement for benign hypertrophy has been discarded. The evidence indicates that the man whose prostate has been the seat of frequent venereal or unrecognized non-venereal infections is fairly well insured against a hypertrophy and practically guaranteed a median bar. If that be true there should be many bars.

Development of Prostatic Surgery

About thirty or forty years ago the mortality rate of prostatectomy was in the neighborhood of 50 per cent. Since that time, due to an increasing knowledge of the pre-operative and post-operative care of the patient, surgeons have reduced the mortality to about 4 per cent, that is, in the hands of those who devote their entire time to this work. One fact which has a large bearing on the result is that while disturbances of urination are important, it is of much greater importance to understand that prostatic obstruction is a disease causing the most profound metabolic disturbance. This derangement of metabolism not only affects renal function, but the cardio-vascular system is damaged in an attempt to restore renal function and the disturbance tends toward an exhaustion of various other systems of the body. This knowledge is necessary.

Some surgeons were of the opinion that

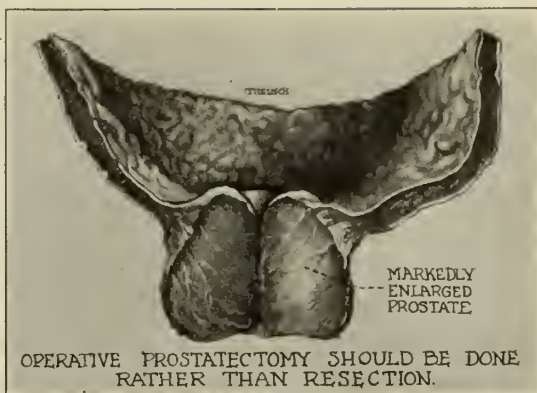


Figure 3

better results were obtained by the supra-pubic route and others by the perineal. At present we are not so much concerned with the type of operation, for with good technique the end results are similar. In either type of operation, success depends largely upon the preparation of the patient, particularly drainage of the bladder. In some instances it is necessary to drain supra-pubically because of the desire to drain over a long period of time; in others, an in-dwelling urethral catheter will suffice, provided of course the patient is tolerant to it. More patients are drained now with an in-dwelling urethral catheter than by a supra-pubic cystotomy because they are seen earlier now than formerly and consequently are in better shape. Such has been the evolution of prostatic surgery.

Prostatic Resection

In spite of the advancement which has been made in surgical removal of the prostate, there is a growing body of opinion which favors prostatic resection, a less radical procedure.

In brief, let us state just what prostatic resection is. The fundamental principle is the removal of the obstructing prostatic tissue by means of a high frequency current through a tubular instrument in the urethra. Sufficient tissue is removed to relieve the obstruction with a minimum amount of injury to the surrounding parts. It is stated by those who favor this method that it is not necessary to remove the entire gland but only the obstructing portion; a great deal of the rest of the gland retracts. With this unit very little hemorrhage occurs, either recent or re-

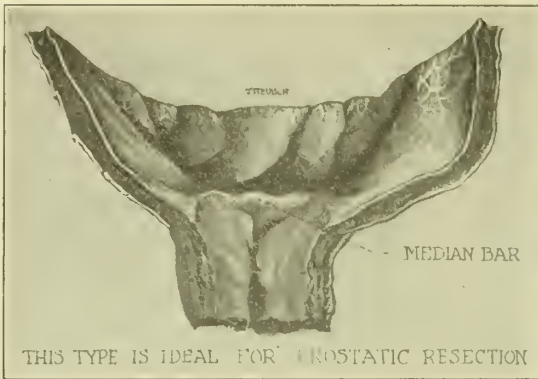


Figure 4

mote; complications are few, and hospitalization is only a few days.

If necessity is the mother of invention, this procedure which requires such short hospitalization has certainly come at the right time because of the economic situation that we are going through. Cost and loss of time are matters of grave concern to us all now.

Comparative Dangers

Let us compare the dangers involved in the operative and non-operative procedures, taking it for granted that one is skilled in both. There are three danger periods: First, during the period of decompression, that is, when the bladder is emptying and the kidneys become unbalanced and the body tissues adjust themselves—this is sometimes a very dangerous and extended period. There are cases in which an in-dwelling urethral catheter will not suffice, and a supra-pubic tube may be necessary. Such care has to be taken whether the gland is removed by surgery or resection. Second, during the period of operation, dangers due to anesthesia, surgical trauma and shock. The anesthetic is the same in either case, gas, spinal, or parasacral. The last is the one most commonly used in resection. Surgical trauma and shock are not so likely in resection but are sometimes present in the operation. Third, during the period of convalescence, there are dangers due to post-operative hemorrhage, uremia, and infection. Post-operative hemorrhage has to be considered as a factor in resection when the tissue begins to slough off about the tenth day, but it can be easily taken care of provided the patient is seen early and the bleeding point can be located. Hemorrhage following the

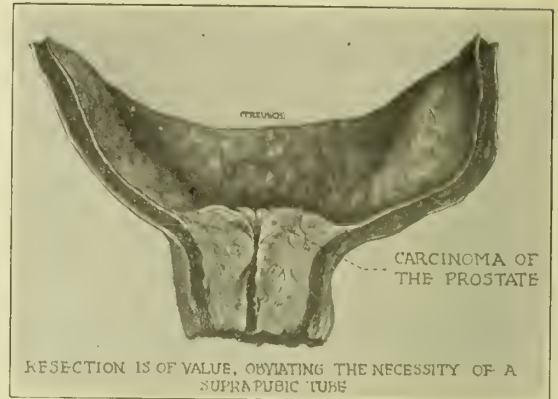


Figure 5

operation has never given any serious trouble since it can, as a rule, be controlled with the Hagner bag. Uremia may sometimes occur following resection. Infection has to be always considered—especially infection of the kidneys following resection. It is not so likely to follow prostatectomy for there should be no reason for back pressure in the kidneys.

Our Experience

With these things in mind we began prostatic resection the first of the year and have resected twelve cases with gratifying results with the exception of one patient who had an enormously enlarged prostate. Two of the glands were resected for posterior commissural hypertrophy; two for prostatic carcinoma; two for median bars; five for moderately enlarged prostates and one for a marked prostatic hypertrophy. Very good results were obtained in all with the exception of the last case. This patient has been wearing a supra-pubic tube for two years and because of the poor risk from the surgical stand-point we resected the gland and removed quite a bit of tissue. He has been able to void a little since that time, something which he had not been able to do before, but on re-examination he was found to have a good deal of obstructive tissue left.

There were two complications in the twelve cases. One an epididymitis and the other a secondary hemorrhage on the tenth day. The patient with the hemorrhage was out of town at the time and was brought to the office on the following day. The clots were removed from the bladder through the urethra in the office, and, after a few days of urethral catheter drainage the hemorrhage subsided. It was not necessary to operate on him.

The Value and Limitations of this Procedure

We feel that prostatic resection is definitely indicated in some cases of vesical neck obstructions. This is particularly true in the median bars, where there is a fibrous band across the neck of the bladder. In the glandular bars, that is, the solitary posterior com-

missural hypertrophies, resection is ideal. The entire median lobe can be resected out, leaving an avenue sufficient to empty the bladder. In carcinoma, in which the condition is too far advanced when the diagnosis is made to bring about a cure, resection is of temporary value in relieving the obstructions, so that the bladder can be emptied, obviating the necessity for a supra-pubic tube. We have been advocates of the supra-pubic tube in these cases for some time, and due to its many drawbacks, we are now glad that these cases can be temporarily relieved without it. In the moderately enlarged and early prostatic hypertrophy this procedure is of definite value, because the back pressure changes in the kidneys and bladder are not far advanced.

We do not feel that resection can take the place of operative prostatectomy for the markedly enlarged prostates. In this type of case we intend to continue with the usual method of prostatectomy.

Finally, one cannot state too emphatically, that this is not a simple procedure, for it requires not only a thorough knowledge of the anatomy and pathology of the posterior urethra, but also skill and experience in manipulation of the resectoscope.

695 Doctors Building.

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The Roentgen Diagnosis of Duodenal Diverticula, by Robert C. Pendergrass, M.D., in *Radiology* 27:1216 (Dec.), 1931.

Two and a half years ago Pendergrass published in these columns a paper entitled "Diagnosis of Diseases of the Duodenum". This, his fourth paper on the duodenum, is confined to the diagnosis of diverticula and stresses the points in roentgenologic technic rather than the semeiology. It includes a good bibliography and a number of splendid illustrations. The chief factors in the diagnosis of duodenal diverticula are:

1. Looking for the lesion.
2. Knowledge of the pathology of this lesion and of those with which it may be confused.
3. Careful fluoroscopic observations.
4. Films duplicating as nearly as possible the extra-luminal barium shadows seen under the screen.
5. Familiarity with the roentgen appearance of this and of similar lesions.

HYPOGLYCEMIA*

Case Report

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Hypoglycemia is a condition in which the blood sugar is below normal. It was recognized before the advent of insulin, in certain cases of diabetes receiving a low carbohydrate or starvation diet. With the general use of insulin in the treatment of diabetes mellitus, "insulin shock" has become a common condition and the symptoms are usually recognized. There is, however, an occasional case of hypoglycemia which may escape recognition unless careful clinical observation is made. Unfortunately the laboratory data, even though accurate so far as diabetes is concerned, may give normal blood sugar readings in certain cases of hypoglycemia unless the blood is procured during an attack. The case here reported represents such a case.

Case Report

A lawyer, age 40, was seen by one of us (E. W. A.) on April 20, 1931. While defending a case in the courtroom he suddenly became weak and nauseated, was unable to speak or walk for a few minutes, and when first seen was lying down, having been carried to an adjoining room. He did not lose consciousness. He was intensely pale, and was perspiring freely; the pupils were widely dilated and there were marked tremors of the upper extremities. His blood pressure was 180/100; pulse rapid, 120 or more, and regular. He complained of intense dizziness and nausea when he attempted to sit up. Thirty minutes later he was able to get into an automobile and ride home.

The patient gave a history of having worried a great deal during the past three years over a series of deaths and serious illnesses in his immediate family. He had had a sensation of generalized weakness about noon several days a week since January, 1931. During these periods he suffered from headache, had tremors, and excessive sweating associated with weakness. He would sit down and drink a Coca-Cola, following which he would improve, but would suffer from exhaustion for a period of six to eight hours.

Due to a recent attack of influenza it was thought best to put him to bed for observation. Three days

*Read before the Second District Medical Society, Tifton, Ga., October 9, 1931.

after the first attack, at 12:30 p.m., he had a similar attack during which the tremors were more noticeable. At this time the patient complained of hemiparesis, pains radiating into the arms and a sensation of numbness in both hands. He was intensely apprehensive during the attack and believed that he was going to die. His systolic blood pressure was elevated from 120 to 160 during the attack and would oscillate for a period of three hours after which it would remain at 120. His pulse rate ranged from 100 to 130, but returned to 100 after the attack. It was believed that he had a myocarditis, but hypoglycemia was suspected and a blood sugar determination after twelve hours of fasting showed 87 milligrams per 100 c.c.

The patient remained in bed for a period of six weeks, during which time he had two other attacks, both showing about the same symptoms; namely: paleness, dilated pupils, tremors of the upper extremities, usually excessive perspiration and a tachycardia. All observations showed a rise in blood pressure during the attack. During this period other blood sugar determinations were made after the usual fasting of twelve hours; they averaged 90 milligrams to 100 c.c. of blood. His Wassermann test was negative, blood counts within normal limits, urinalyses negative and the basal metabolic rate minus 12.

With rest and regular feeding the patient gradually improved. Digitalis was administered in small doses for a time but had no effect on the pulse rate. Thyroid extract, grains 1 daily, was given to improve the metabolism. After three weeks in bed he seemed quite well except for the anxiety in regard to future attacks. He was especially anxious in regard to his heart, and felt as though he might die at any time. He was encouraged, and assured that his condition would improve. He was advised to go back to work, to eat regularly and take moderate exercise, such as swimming and walking. Thyroid extract was continued, 1 grain daily.

Following a speech made in the Georgia House of Representatives on June 30, he had a severe attack similar to those already described. When seen by one of us (E. D. S.) fifteen minutes later he was lying on a cot, appeared very pale, his pupils were widely dilated but equal; there was marked tremor of both hands and forearms and he was bathed in profuse perspiration. His blood pressure was 142/90; pulse, 120, regular and good volume. He complained of epigastric discomfort and was very apprehensive in regard to his heart. He was carried to Wesley Memorial Hospital and observed for a period of one hour. During this time an electrocardiogram was made and blood was obtained for a sugar determination. He was assured that his condition was improved and was told to return to his hotel. The blood sugar was 66 milligrams and a message was telephoned to him to drink orange juice, sweetened with sugar, and a coca-cola. His condition promptly improved and he was told to return to his work the following day, but to drink a coca-cola and eat some

candy between each meal. The electrocardiogram showed a regular rhythm, an inverted T in Leads I and II and a deep S in Lead III, indicative of a possible diffuse myocarditis.

On the following day an X-ray of the heart taken at six feet was normal in size. His blood pressure was 120/80; pulse, 90, regular and good volume. His weight was 182 pounds (82 kil.), he was pale and extremely nervous, but the physical examination was essentially negative. He was told to resume his work, to eat regularly and to drink sweetened drinks, such as orange juice, between meals. A prescription containing hyoscyamus and bromide was given.

Two weeks later, July 14, he stated that he had improved some but that he had been very busy and had not been able to take moderate exercise. On this date he had made a short talk before the House and felt nervous and weak afterwards. He immediately returned to his room and began to drink orange juice. His pupils were slightly dilated; pulse, 110 and regular; blood pressure, 120/80. His abdomen was distended with gas and he experienced some abdominal discomfort which was thought to be due to the high carbohydrate intake. After an hour in bed, during which time he drank two glasses of orange juice, his condition improved and he went back to work.

On July 23, the blood sugar determination on a fasting stomach was 100 milligrams. X-ray studies of the gastro-intestinal tract and gall bladder were normal except for a spastic colon. Urinalyses were negative except for an occasional hyaline cast. He was instructed to continue the high carbohydrate diet, but to avoid highly seasoned and rough foods. Tincture of Belladonna, minims 8, was given after each meal and mineral oil morning and night.

Two days later, while sitting at the dining table awaiting his luncheon, he was seized with a severe attack and went immediately to his room where one of us (E. D. S.) saw him thirty minutes later. He was lying flat in bed, was pale, pupils were dilated and even, his hands and feet were cold and there was little moisture on his skin. He was extremely nervous but there was an absence of tremors. Already he had taken a glass of orange juice, but 40 grams of a 50 per cent glucose solution was administered intravenously. Almost immediately he began to improve, and within a short time arose from the bed and said that he was all right. His blood pressure remained at 120/80 during this attack, but the usual tachycardia was noted, a pulse of 120, regular and of good volume. Since this time he has not had a severe attack but has been seen frequently by one of us. For a time he was extremely apprehensive in regard to his heart but when assured that it had never shown evidence of failure he promptly forgot the matter and began to take moderate exercise, playing golf, walking and using a gym boat daily.

Glucose tolerance tests show a normal curve. A stereo of the skull shows a normal sella. An electrocardiogram, made when the patient was not in an attack, was normal.

Comment

Hypoglycemia may result from various causes. Recently Gammon and Tenery made an exhaustive review of the literature and added a case to those already reported. They state that hypoglycemia may result from several types of abnormal mechanisms: (1) from disturbance of carbohydrate control; (a) through overproduction of insulin by hyperfunction, hypertrophy or tumor of the islets, or (b) through loss of the substances that are antagonistic to insulin as in hypo-adrenalinism, hypo-thyroidism, pituitary dysfunction or combinations of these; (2) from interference with storage or release of glycogen in the depots of the body—the liver and muscles—or from depletion of glycogen from physical effort; (3) from conditions in which dextrose is lost from the body as such, e.g., in renal diabetes, or as other sugar, e.g., in lactation. The most important cause by far is that of over-production of insulin. Cross and Blackford's article reporting a fatal case of hypoglycemia as a result of neosphenamine poisoning is classic.

Our case presented several problems, but it was believed that we were dealing with a functional hypoglycemia, due to interference with the storage or release of glycogen in the depots of the body, namely the liver and muscles. Our patient had been very active in athletic affairs until ten years ago, but since that time had not taken exercise. With a negative history for rheumatic fever and syphilis and an absence of heart failure signs it is doubtful that he had a myocarditis, although there is a possibility of coronary infarction as the patient comes from a hypertensive family.

Accepting the case as a functional hypoglycemia, that is not due to an organic change in the pancreas, we would like to suggest that the hypoglycemia is due to two principal causes:

First: To an atrophy of disuse of the striate muscular system, from the gradual change in habits from an athletic youth to the sedentary life of a practicing attorney, who ignores the physiological need of systematic exercise. It seems logical that the disuse of the muscular system will lessen the

storage of quickly available carbohydrates, not only of the muscle tissues, but the liver as well. The laborer has a greater daily demand on the glycogen store in the liver than one who lives a strictly sedentary existence. Therefore the laborer would expect to have a more efficient mechanism for stabilizing the blood sugar in emergencies just as his heart muscles are more efficient.

Second: The constant emotional stress, due to unavoidable difficult social situations, has caused an exhaustive syndrome with a hypofunction of the adrenals. So, when the patient is placed in an acutely emotional state, such as addressing a jury, the adrenals are already partially exhausted and are unable to meet promptly the demand placed upon them. There is probably a hyperglycemia at the beginning of the acute emotional state, which is followed by the sudden exhaustion of the adrenals, and the attack of hypoglycemia is precipitated. This is a very good example of Cannon's principle of homeostasis. The hypoglycemia is the distorting factor in the autonomic nervous system, which brings the defensive mechanisms into play; so we see associated with the hypoglycemia the symptoms of a sympathicotonia, which is an effort on the part of the autonomic nervous system to elevate the blood sugar.

Upon this hypothesis the proper treatment would be, first to relieve the emotional stress if possible; this is always difficult, as one becomes emotional largely over problems which are baffling. Second, a gradual development of the muscular system by systematically increasing exercises. The exercise would correct the muscular atrophy and stimulate the glycogenic functions of the liver. Third, frequent feedings rich in carbohydrates.

The hypothesis also offers an excellent excuse for indulging in the various extravert hobbies, which are associated with exercise in the open, such as golf and hunting.

Summary

A case of hypoglycemia is reported in which blood sugar determinations were within normal limits except during an attack.

DIVERTICULUM OF THE BLADDER

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This case is reported to demonstrate the importance of complete urologic studies in cases of recurrent or protracted urinary disturbances.

Report of Case

Mr. S., aged 53, was first seen November 13, 1930, complaining of frequent and painful urination. He denied any venereal infection. For the past thirty years he had had nocturia and periodic attacks of varying intensity and pain. Twenty-five years ago he had a meatotomy and dilatation of urethral strictures. For the past five or six years he had had nocturia 1 to 6 times, with some frequency during the day. His condition had gradually grown worse, and he had at the time of examination, urgency, pain, and throbbing in the perineum after urination. He stated that he never felt relieved by voiding. Incontinence at times and dribbling following urination. There was never a free flow of urine.

Examination. Urine: All three glasses were cloudy. The meatus admitted size 26-F acorn sound. The urethra appeared thickened just behind the meatus. The prostate which was the size of a large lemon, was soft and very tender; purulent fluid was expressed profusely; smear of this showed many pus cells, loose and



FIGURE 1

Air cystogram: the intrusion of the prostate into the bladder (at the tip of the catheter) is clear, and the diverticulum, almost as large as the bladder itself, is seen in the upper left corner, which is on patient's right.

in clumps. A catheter was passed following the patient's attempt to empty the bladder and 10 oz. residual urine was withdrawn which was very cloudy. While the catheter was in place an air cystogram was made which showed a large diverticulum to the right of and slightly behind the bladder, as well as intrusion of the enlarged prostate into the bladder.



FIGURE 2

Cystogram showing ureteral catheter coiled up in the diverticulum; the size of the opening between the bladder and diverticulum is indicated by the catheter. The bladder is filled with solution of sodium iodide.

A cystoscope was passed with some difficulty through the prostatic urethra and revealed a markedly inflamed bladder, but no stones or tumors. There was an opening about 2 cm. in diameter above and to the outside of the right ureteral orifice into which a catheter passed easily to coil in the diverticulum. The patient was catheterized twice daily and since he did not respond to injections, the bladder irrigated in an attempt to overcome the inflammatory process. The patient would not allow the use of a retention catheter. His condition grew worse. Since his general condition apparently was still fairly good, he was sent to the hospital for an emergency suprapubic cystotomy and removal of the diverticulum. On admission to the hospital November 20, 1930, urinalysis showed innumerable red blood and pus cells with a trace of albumin. November 21, 1930, under spinal anaesthesia through a midline incision the bladder was exposed and the diverticulum freed from its adhesions and exposed. The bladder was opened, and then the diverticulum was clamped, tied and removed and the stump inverted with a purse string suture. A large Pezzer catheter was used for suprapubic drain. Immediately following the suprapubic cystotomy, the patient developed a partial suppression of urine, then uremia which lasted for four or five days. November 24, 1930, N. P. N. was 120, Urea N. 43, and Creatinine N. 4.3. He improved rapidly and was discharged from the hospital December 4, 1930.

On his first visit to my office, December 16, 1930, following discharge from the hospital, his blood chemistry showed N. P. N. 46, Urea N. 20, Creatinine 2.2. Another blood chemistry taken January 16, 1931, showed N. P. N. 43, Urea N. 15, Creatinine 1.6. He was returned to the hospital January 18, 1931, and the following day, the second stage

of prostatectomy was done under spinal anaesthesia. He had an uneventful recovery with a complete closure of the suprapubic wound February 9, 1931.

The excised sac measured 5 by 6 cm., with wall about 2 mm. in thickness. The prostate gland consisted of three sections about 2 by 2.5 cm. each. It was firm and resistant to the knife, showing marked fibrosis.

Comment

Many authorities believe that diverticula arise at the site of a congenital weakness of the bladder-wall. However, they are most commonly found in cases in which there is obstruction at the urinary outlet. In this case first urethral stricture and later prostatic hypertrophy unquestionably aggravated the condition.

INDICATIONS FOR AND RESULTS OF THE REMOVAL OF THE SPLEEN

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That the spleen could be removed without danger to the life and well-being of an individual was known to the ancients; in fact the early Greeks advocated its removal in their runners to make them more speedy, basing their idea on the erroneous assumption that the speedy giraffe had no spleen. While there has been some experimental work to apparently justify this, it would seem to be in direct contradiction to our present day viewpoint, the spleen having been observed to contract and thus add blood into the circulation in cases of exercise and in other changes in blood gases. As enlargement of the spleen was common in those days it might have been thought that the removal of a burdensome organ might render the athlete more efficient.

Galen called the spleen the organ full of mystery (*mysterri pleni organon*) and to many of us it has remained such even today. Hippocrates thought its function was to draw the watery part of the food from the stomach because of the close proximity of the organs. Aristotle claimed that it acted merely as a prop for the stomach.

Only last century a prominent physiologist in lecturing to his students about the spleen said, "Now we come to the spleen. Of it, we

know nothing. So much for the spleen." Recently another physiologist remarked that all that was definitely known about the spleen was that it could be removed without fatal consequences and that it became swollen in some acute infections; everything else was "mere surmise" as he expressed it.

Physiology of the Spleen

Probably the most valuable recent critical review of the functions of the spleen is that of Krumbhaar¹ in 1926. Concerning what is definitely known at the present time in regard to the functions of the spleen he says:

"Today we can assert without fear of valid contradiction that the spleen is the largest lymphoid structure in the body; it is intimately concerned with blood cell destruction and potentially with blood cell formation; and it has a controllable reservoir system of importance in aiding the circulation in volume changes of various kinds."

It is interesting to compare this statement with one made by Henry Gray in his book on the spleen printed in 1854. He says:

"The function of the spleen is to regulate the quantity and the quality of the blood—the most satisfactory proof that we can possess is that the spleen really does contain, under certain circumstances, a varying amount of blood and that amount is to such an extent as to justify us in concluding that the organ seems to regulate its quantity." Apparently he had the correct idea as to its function without the laboratory proof.

Anatomy. The peculiar anatomy of the spleen bears such an integral relationship to some of its functions that it must be considered in order properly to comprehend them. In the first place, one is struck with the relatively large size of its blood vessels, foreshadowing to some extent the reservoir function of the organ. Instead of the usual capillary connections between artery and vein, there are three ways in which arterial blood passes to the veins. First, the branches of the splenic artery pass through the trabecula into the malpighian follicles where capillaries are given off that end in the follicle. Second, subdivisions passing through the splenic pulp divide and branches pass through the peculiar stopcock stage of the

Hulsenarterie (unique to the spleen) and end either as a fenestrated end chamber or connect directly with a venous sinus. Lastly, the sinus having a structure comparable to barrel-hoops, enclosing fenestrated staves, also receives blood through the fenestrations or directly from the pulp. These alternate routes and controllable shunts through the pulp offer splendid opportunities for storage and a cellular metabolic mechanism. Clinical evidence indicates that at times the backwaters thus afforded may become a positive disadvantage as in malaria and syphilis.

Functions of the Spleen

(1) *Blood Formation.* In fetal life the spleen is actively engaged in forming red blood cells, but it is doubtful that the adult spleen enters into the production of any of the formed elements of the blood under normal conditions. In certain blood diseases (leukemia) the normal splenic pulp cells disappear and are replaced by lymphocytes or myelocytes.

(2) *Blood Destruction.* Kolliker and Ponfick² first called attention to the microscopical evidence that the spleen actively participated in the elimination of the erythrocytes and the products of their disintegration together with bacteria and foreign matter. In this manner the spleen acts as a filter removing dead, worn-out cells, organisms and other useless matter from the circulation so that it is sometimes referred to as a "graveyard". This function is carried on chiefly by the large mononuclear cells of the reticuloendothelial system and after removal of the spleen, it is taken up by other parts of this widespread system.

Recent work has shown bilirubin to be chemically related to hemoglobin, fluctuating roughly with red blood cell destruction and, as pointed out by Rich³, it is probably formed only in the reticuloendothelial system. Using the spectrophotometric method, Mann⁴ has been able to demonstrate appreciably more bile pigment in the splenic vein than artery. Clinical evidence to support this belief that the spleen plays an important part in red blood cell destruction and bilirubin formation is demonstrated in cases of hemolytic jaundice where this function becomes perniciously active and blood is de-

stroyed in large amounts. The marked rise in the platelet count following splenectomy suggests that it may destroy them normally, but this has not been proven.

(3) *Reservoir Function.* The observations of Bancroft and his co-worker⁵ have clearly shown that the spleen forms an important reservoir of red blood cells which are held there to meet circumstances in which increased amounts of hemoglobin are required. Experiments with carbon monoxide gas prove that under resting conditions the splenic pulp is practically cut off from the general blood stream. The small rhythmic contractions of the spleen known to occur normally do not appear to help the interchange of blood appreciably. Gross contractions are known to occur following exercise, hemorrhage, carbon monoxide poisoning and in rarefied atmosphere.

The spleen apparently has the ability to enmesh the surplus by means of its reticulum and retain them for future use. This is sometimes referred to as the "bank" function and approximately 25 per cent of the total blood cells can thus be stored and returned to the general circulation when needed by contraction of the smooth muscle.

(4) *Metabolism of Iron.* The peculiar richness of the spleen in iron and blood pigment was noted by Henry Gray in 1854, and by many others since that time. This fact, together with the close association of iron with the hemoglobin molecule and the changes observed in iron elimination after splenectomy, have lead Ascher⁶ and his school to consider the spleen the important organ of iron metabolism, but Krumbhaar⁷ using a large number of animals of nearer the same weight, and using longer test periods, failed to confirm their results. Therefore, the solution of this problem will have to be left for future work.

(5) *Metabolism of Fat.* The importance of the spleen's relation to fat metabolism was stressed by Eppinger⁷, who observed that there was an increase in the total lipoids and the unsaturated fatty acids in the blood in conditions both clinically and experimentally associated with increased blood destruction, and that these elements are diminished by splenectomy. He concluded with King⁸ that

there was a parallelism between the degree of hemolysis and amount of unsaturated fatty acids in the blood, but Krumbhaar failed to show any marked disturbance in fat utilization after splenectomy⁹. However, the spleen seems to have some definite connection with fat metabolism, especially cholesterol and unsaturated fatty acids, which may be the reason for improvement following splenectomy in certain anemias.

(6) *Defence Reaction or Relation to Immunity.* The spleen seems to be an important site of antibody formation, though this function is quickly taken up by other organs after removal. Through its lymphoid role, it plays a part in resistance to such infections as tuberculosis. Evidence points to a biological resistance of the spleen to tumor growth as it is relatively free from tumor metastases.

Indication for Removal of the Spleen

Splenectomy is a comparatively modern operation. The first time it was deliberately performed as a therapeutic measure in disease was the occasion of the historic operation of Spencer Wells in 1866¹⁰. Since that time its removal has been advocated in every disease in which the spleen was considered to be even remotely related; reports from the Mayo Clinic list over thirty conditions for which the operation has been performed. However, since our knowledge of the spleen has been increased greatly due to clinical experience and experimental observations, the indications for its removal have narrowed considerably until now, if one excludes the obvious indications in cases of rupture, cysts and tumors, its removal is accepted as the proper form of therapy in only three conditions.

Splenic Anemia

The term "splenic anemia" has been somewhat indiscriminately used to cover an ill-defined group of cases characterized by anemia, enlargement of the spleen and a leukopenia, the pathogenesis of which is still quite obscure. As originally described by Banti¹¹ in 1894, the term was used to include a number of specific conditions, many of which have since been separated, such as syphilis, malaria, cirrhosis of the liver, aleukemic leukemia and kala-azar. Even more lately, hemolytic jaundice and the spleno-

megalies of Gaucher and Niemann types have been separated from this group. Its existence as a clear-cut clinical entity is still disputed by many, but there still remains a residue of cases of splenomegaly, which are thought to be primary because of (a) the early appearance of the enlarged spleen, (b) the appearance of fibrosis earlier in the spleen than the liver and (c) the beneficial effects of splenectomy. Osler's¹² definition is a concise description of the disease:

"A chronic affection, probably an intoxication of unknown origin, characterized by progressive enlargement of the spleen which cannot be correlated with any known cause as malaria, leukemia, syphilis, cirrhosis of the liver, a marked tendency to hemorrhage; and in many cases a terminal stage with cirrhosis of the liver, jaundice and ascites."

While the etiology is not definitely known, there are two theories as to its causation:

1. A primary inflammatory sclerosis of the spleen due perhaps, to a fibrogenic toxin (Moschowitz¹³). This supposes that the splenic sclerosis leads to blood destruction.

2. A primary vascular derangement, suggested by the frequent association of thrombophlebitis of the splenic and portal veins.

The symptoms run a chronic, slowly progressive course over a period of years. Weakness, pallor and digestive disturbances, along with enlargement of the spleen, appear in the first stage. Later there is a marked tendency to profuse gastric hemorrhage, which is a frequent cause of death. In the last stage, cirrhosis of the liver occurs with ascites, jaundice, anemia, and emaciation.

Blood examination shows the changes of a secondary anemia with few signs of blood regeneration; the red blood count averages 3,000,000 and 50 per cent hemoglobin; no normoblasts and few reticulocytes are present. Leucocytes are diminished with absence of myelocytes. There is normal or increased resistance of the red blood cells.

On the basis of the platelet count there has recently been an attempt to divide this disease into two types:

1. Thrombopenic: marked diminution in the number of platelets.

2. Thrombocythemic: normal or increased number of platelets.

Rosenthal¹⁴, in 1925, and Howell Evans¹⁵, of Liverpool, in 1929, have reported series of cases classified according to the platelet count. The clinical importance of this classification is shown by the fact, that, while splenectomy is followed by brilliant results in the first group, it cannot be recommended with the same confidence in the second group and probably is contraindicated. It is well known that the most frequent post-operative complication of splenic anemia is portal and mesenteric thrombosis, due to a progressive thrombophlebitis extending from the stump of the splenic vein into the portal system; the increase in platelets following splenectomy is also an established fact. Patients in the thrombocythemic group are distinguished by Kaznelson¹⁶ and Eppinger¹⁷ as a "thrombophlebitic splenomegaly" and they regard splenectomy as inadvisable. In five cases operated of this type in Rosenthal and Evans series, two died from mesenteric and portal thrombosis and all had post-operative thrombosis of peripheral and abdominal veins.

Hemolytic Acholuric Jaundice

Two types of this disease occur, the congenital or familial (Minkowski-Chauffard^{17 18}) and the less common acquired type Haymen-Widal^{19 20}.

a. Familial Type. While the anomaly is present at birth, notable symptoms may not appear until years later and some affected individuals apparently never suffer any ill-effects. Symptoms are usually manifest during the first two decades of life.

The most characteristic feature of the disease is the recurring periods of red blood cell destruction "crises": due to these, anemia, jaundice and splenomegaly occur. Malaise and fatigability are increased and in severe cases prostration occurs with fever, nausea, vomiting, anorexia and abdominal pain. Examination of the blood shows a moderate anemia usually, with an average count of 3,000,000 red cells; counts below one million have been recorded in severe cases. Signs of regeneration are present; the reticulocyte count may rise to 20 per cent. The leucocyte count is increased during the crisis; the platelet count is normal. The blood serum is

usually heavily bile stained with a high icteric index and gives a strongly positive indirect Van den Bergh reaction. There is definite and constant diminished resistance (or increased fragility, as it is usually called) to the hemolytic action of hypotonic salt solution. Hemolysis may begin in a dilution as high as 0.6 to 0.7 per cent (normal 0.44 per cent) and be complete at 0.4 to 0.48 per cent (normal 0.34 per cent). This phenomenon is believed to be pathognomonic of this disease as the resistance of the red cells is usually increased in other anemias.

There is an excessive secretion of bile due to the increased red blood cell destruction and bile pigments (urobilin) appear in the urine and feces. However, bilirubin is not found in the urine as in obstructive types of jaundice. Gall stones of the pure pigment type are common, occurring in 67 per cent of the cases.

The crises usually recur at irregular intervals of about three to four months. During the remission a patient may feel entirely well or complain of slight weakness and fatigue. The sallow or yellowish discoloration of the skin is usually present and merely deepens during the crisis. The attacks do not tend to become more severe and death from the disease is not common; however, the individual remains under par all his life.

b. Acquired type. This type is less common and does not form a definite clear-cut clinical entity as the familial type. The symptoms occur later and are more severe; the crises are more acute and protracted, but the jaundice and increased fragility of the red blood cells are less marked. It frequently is secondary to some infection such as syphilis, leukemia, cirrhosis of the liver and malaria. It is not transmitted.

Purpura Hemorrhagica or Essential

Thrombopenic Purpura

This chronic type of recurrent purpura is the third condition for which splenectomy may be regarded as an established method of treatment. Some objection has arisen to the use of these terms as not being accurately descriptive of the disease. Purpura means a spontaneous extravasation into or under the skin or mucous membranes, so that all types must be hemorrhagic, and in some

cases the hemorrhage is not in the skin at all but from the alimentary tract, kidneys, uterus or nose. Tidy²¹ suggests the term "hemorrhagic diathesis", which covers this group of conditions more satisfactorily. The purpura is only one symptom in this syndrome; secondary purpura occurs during the course of other established conditions such as acholuric jaundice, chronic sepsis, hemophilia, congenital syphilis, and leukemia.

Historical. In 1731 Welhof²² first considered purpura hemorrhagica to be a distinct disease entity. Hayem, the French hematologist, discovered the thrombocytes and noted the increased clot retraction time, and along with Duke²³, called attention to the increased bleeding time so characteristic of the disease. Denys²⁴ was the first to observe the diminution of platelets and Wright²⁵ established the fact that the megalokaryocytes were the parents of the platelets. Pagniez²⁶ demonstrated that the increased clot retraction time was due to the diminished platelets. Hess²⁷ first advised removal of the spleen in 1915 and evolved the tourniquet test of capillary resistance. Kaznelson²⁸, of Prague, performed the first splenectomy for this disease in 1916.

Pathogenesis. The essential manifestation of the hemorrhagic diathesis is the escape of blood through the walls of the capillaries and arterioles. The cause must lie in some abnormality of the blood or walls of the blood vessel. Much attention has been directed to the influence of the platelets as they are indispensable for thrombus formation, being the main source of prothrombin and one source of cephalin. Their presence is also necessary to bring about the retraction of the clot which mechanically causes the closure of the bleeding vessel. Frank²⁹ believed that the reduction in platelets was due to an inhibitory action of the spleen on the bone marrow, and called the disease an "essential thrombopenia". He considered it to be a true disease in which the reduction of platelets is the primary event. Kaznelson³⁰ regarded the condition as a thrombocytopenic purpura due to a destructive action of a diseased spleen. Koster³⁰ agreed with him, feeling that the coagulation time could not remain normal if platelets, which supply a thromboplastic substance, were not formed in sufficient num-

bers. There is definite evidence, however, that reduction of the number of circulating platelets is not the essential cause of the hemorrhages. Following the removal of the spleen, Brill and Rosenthal³¹ observed the platelet count fall to below 1000 per c.m. without hemorrhage and Bedson³² has produced a serum which will reduce the platelets to zero in animals without the occurrence of hemorrhage.

As no changes in the blood cells have been found, we are led, by the process of exclusion, to the view that the essential factor in primary purpura is an abnormal permeability of the endothelium of small blood vessels. Platelets adhering to such permeable sites are withdrawn from the circulation and if the condition be extensive the possibility of blood escaping from unprotected points will be increased. Removal of the spleen does not cure the disease, but by diminishing the destruction of cells and platelets, it permanently removes one source of drain on the bone marrow.

The disease occurs or begins most often in children; there are two forms, the acute, and the chronic, which is the more common form, with recurring symptoms over a period of years. The onset is usually abrupt with bleeding from the mucous membrane and into the skin; however, it must be remembered that hemorrhage can occur in other places. Pratt reported four fatal cases with cerebral hemorrhage. Extensive cutaneous hemorrhage may follow slight trauma. There is no fever and little to be found on physical examination except signs of bleeding and the resulting anemia. The spleen may not be enlarged.

Diagnostic evidence is found on examination of the blood. There is a uniform outspoken reduction in blood platelets from a normal of 250,000 to less than 60,000 and as low as 10,000 in extreme cases. However, this reduction does not absolutely parallel the severity of the bleeding; abnormalities in size and shape of the platelets occur and influence the tendency to bleed. The coagulation time is normal or only slightly prolonged; the clot, however, is distinctly abnormal in that it fails to retract in the usual manner. Bleeding time is greatly

prolonged from a normal of two to twenty minutes to an hour or even more. These last two findings are quantitatively proportional to the degree of platelet reduction. The tourniquet (Hess) test shows a diminished capillary resistance; when removed after five minutes a profuse crop of hemorrhagic spots appear and this is almost pathognomonic of thrombopenic purpura. The blood otherwise shows evidence of a post-hemorrhagic secondary anemia with evidence of red cell regeneration.

This type of purpura must be differentiated from several conditions presenting much the same blood picture (symptomatic thrombopenic purpura). Among these are: severe intoxications (benzol, arsphenamine), infection (typhoid, sepsis, diphtheria), anaphylactic shock, aplastic anemia, pernicious anemia and acute leukemia. Other conditions in which purpuric eruptions occur, but without the reduction in platelets are: intoxications (snake venom, iodine and other drugs), acute infections (typhoid fever, sepsis, diphtheria), anaphylactic shock, aplastic anemia, senile purpura, scurvy, purpura simplex, Schonlein's purpura and Henocks purpura.

Other Conditions

The spleen has been more or less successfully removed for the following conditions: Pernicious anemia, leukemia, Hodgkins disease, lympho-sarcoma, polycythemia, tuberculosis, syphilis, chronic sepsis, cirrhosis of the liver, Gaucher's (Niemann) disease, von Jaksch's pseudoleukemic anemia, sickle cell anemia, cysts, tropical splenomegalies, tumors and traumatic rupture.

The removal was distinctly beneficial in some of these conditions and has been discarded for others. Time will not permit a detailed discussion of each.

Results of Removal of the Spleen

In the normal individual the results of splenectomy are as follows:

1. Mild secondary anemia lasting three or four months. Compensation occurs by overgrowth of the reticulo-endothelial system.
2. Leucocytosis of 20,000 to 40,000. Duration six months, approximately.
3. Increased number of platelets. Duration three to four months.
4. Increased resistance of red blood cells

to the hemolytic action of hypotonic salt solution.

5. Loss of reservoir function. In case of serious hemorrhage this may be of fatal consequence.

Mortality. At the Mayo Clinic³³ 500 splenectomies were performed between 1904 and 1928, and the hospital mortality was 10 per cent. At the present time, with the many improvements in operative technique, it would be safe to say that the operative mortality is less than five per cent.

1. *Splenic Anemia.* The progress of this disease is arrested with cessation of the hemorrhages and an improvement in the anemia. This may be due to the increase in the number of platelets thus decreasing the hemorrhagic tendency. Ascites and jaundice may disappear entirely and the patient enjoy relatively good health for many years. Thrombosis of the abdominal or peripheral veins may occur as a serious complication especially in the thrombocythemic group.

2. *Hemolytic Jaundice.* Destruction of the fragile red blood cells ceases with removal of the spleen; the resistance of these cells may return to normal but it is doubtful that it remains so permanently. Jaundice disappears and the Van den Bergh reaction becomes negative; the bile pigments also disappear from the urine. The characteristic crises do not recur and the patient is clinically cured in approximately 90 per cent of the cases. The results are spectacular in many cases and have firmly established the procedure as the only method of treatment. The results in the acquired type are not as spectacular, however, but are sufficiently good to warrant the operation.

3. *Thrombopenic Purpura.* While removal of the spleen has become the accepted form of treatment, the exact time at which it should be done is still a disputed point. It should not be performed during the acute stage, except when all other measures fail; the mortality rate in this group is too high to justify the procedure except as a life-saving measure.

The results following removal in the chronic stage are very good and closely approximate those obtained in hemolytic jaundice. In almost all cases bleeding stops

promptly, and there is an immediate and spectacular rise in platelets. This has been found to take place as soon as the splenic vessels are clamped even before its removal is completed. Spence³⁴, in 1928, and Washburn³⁵, in 1930, collected the results in 150 cases and found beneficial results in 80 per cent of the chronic and 16 per cent of the acute cases. There was a mortality rate of 11 per cent in the chronic cases and 82 per cent in the acute cases. Morrison³⁶ has recently called attention to the possibility of accessory spleen being present in some of the cases not relieved by splenectomy and reported one such case cured by a second operation.

CONCLUSIONS

1. The spleen can be removed without danger to the life or well being of an individual.

2. It is concerned with the formation of blood cells only in fetal life and in some blood diseases.

3. It participates actively in blood destruction, removing worn out erythrocytes, bacteria and foreign matter.

4. It acts as a reservoir storing approximately 25 per cent of the total quantity of blood, returning this to the circulation when needed by contraction of its smooth muscle.

5. It is concerned in iron and fat metabolism.

6. The defense reaction of an individual is definitely lessened following removal of the spleen.

7. Removal of the spleen is the accepted form of therapy in splenic anemia, hemolytic jaundice and thrombopenic purpura and is followed by beneficial or curative results in 80 per cent of the cases.

8. The spleen has been removed from many other conditions; in some of these the results were beneficial.

9. Following splenectomy a secondary anemia, leucocytosis, increased number of platelets and increased fragility of the red blood cells results. These pass away gradually by the end of three or four months. The reservoir function is permanently lost and this may prove to be a dangerous handicap to an individual in time of great demand for blood.

10. The operative mortality for a large number of cases is 10 per cent; this has been reduced with modern improvements in operative care.

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THE JOURNAL

OF THE
MEDICAL ASSOCIATION OF GEORGIA
Devoted to Welfare of Medical Association of Georgia

139 Forrest Ave., N. E., Atlanta, Ga.

JUNE, 1932

PRESIDENT'S MESSAGE

In Savannah on May 17-20 we held our Eighty-Third Annual Session of the Medical Association of Georgia.

We had registered around four hundred, which was extra good for this year, considering the financial condition of Georgia and of the United States.

We are always glad to meet in Savannah as we are well taken care of by the doctors, hotels, and ladies. We had one of our best scientific sessions, for which we are grateful to the Committee on Scientific Work, and Dr. J. E. Paullin as chairman.

I have appointed Dr. Paullin, Dr. W. R. Houston, Dr. C. E. Watis, and Dr. A. H. Bunce on this committee for 1933 and we are expecting an excellent program.

I have appointed all other committees; also the new Committee on Maternal Mortality and Infant Death, and have done this without regard for friendship, but for what I thought was the best interest of the Medical Association of Georgia.

I hope our History Committee will get busy and have something done within the next year.

Our Past President, Dr. A. G. Fort, appointed a committee to select the name to be engraved on the Loving Cup presented by Dr. L. G. Hardman. The committee felt they could not decide now who had done the best work in medicine in 1932 and they will report at the annual session in 1933. I think this an excellent idea.

We had as our invited guests Dr. William Mithoefer, Cincinnati, who delivered a lecture on "The Relation of Diseases of the Nasal Accessory Sinuses to the Systematic Derangements"; Dr. Walter C. Alvarez, Rochester, who lectured on "The Practical Points in the Care of Patients with Indigestion"; Dr. Dean Lewis, Baltimore, lec-

tured on the "Clinical Manifestations of Malignant Disease". All of these lectures were above the average and greatly enjoyed.

The Abner Wellborn Calhoun lectureship should certainly be appreciated and well subscribed to. No state can boast of a better doctor or man than we can of the lamented Dr. A. W. Calhoun.

No man in the State did what the Crawford W. Long Committee thought was enough original work to present the Crawford W. Long Memorial prize. A great many of our members should take interest in this work.

We have a few legislative matters I wish to mention: First, the raising of compensation fees to what is necessary to properly take care of a patient and to pay the necessary hospital bill. As it now is, so few of the patients can be taken care of by the doctors and hospitals without a loss to the doctors.

The JOURNAL would like to record the scientific work of Georgia doctors. It earnestly requests, therefore, that each physician in the State who publishes a contribution in some other medical periodical submit an abstract of the article for these columns.

I do not think the intention of the law was that. It is true that many of these patients cannot be taken care of by good competent physicians without loss.

Our hospitals should be protected in some way against injured people on the highways. So often we get these patients and they are not able to pay anything and we have to attend to them from a humane standpoint and most of the time the hospital loses its bill.

Wish we could pass a law that all automobile drivers be licensed and insured for personal and property damage. I am no prohibitionist, but sometimes I think a great majority of these accidents are caused from whiskey, and very often they are caused by pure carelessness.

We must not forget our State Department of Health; no one department is doing more good than this one. Our Department of Health should be a unit separated from all others as nothing is more important than health.

The State Department of Health is handled by good, honest, sincere, hard-working men, who are making every effort to keep down State medicine, and to support our doctors in Georgia.

I feel that we should take some interest in the eugenics sterilization law and should encourage the passage of this bill. California seems to have the best law and one that has been tried for twenty years, to the satisfaction of the State and patients.

Now, members of the Medical Association of Georgia, our seal shows a real handshake; this handshake, in earnest, goes to our hearts. Let's forget a lot of our egotism and selfishness and do our work clean, always remembering the other man wants to be and tries to be just as good a man as we are.

With my kindest regards, love, and appreciation for every doctor, and hoping each one of you in Georgia will advise and help me during the next year, I am

MARVIN M. HEAD, M.D.,

President.

AMERICAN MEDICAL ASSOCIATION

New Orleans Session

The eighty-third annual session of the American Medical Association was held at New Orleans, May 9-13, inclusive. There were 2,752 Fellows registered, many of their wives and other members of their families, visitors and commercial exhibitors.

The House of Delegates met on May 9th. The Medical Association of Georgia was represented by Dr. William H. Myers, Savannah; Dr. C. W. Roberts, Atlanta, and Dr. O. H. Weaver, Macon. The Board of Trustees, of which Dr. Allen H. Bunce, of Atlanta, is a member, met with the House of Delegates.

Sections of the Scientific Assembly were as follows: Practice of Medicine; Surgery, General and Abdominal; Obstetrics, Gynecology and Abdominal Surgery; Ophthalmology; Laryngology, Otology, and Rhinology; Diseases of Children; Pharmacology and Therapeutics; Pathology and Physiology; Nervous and Mental Diseases; Dermatology and Syphilology; Preventive and Industrial Medicine and Public Health; Urology; Gastro-Enterology and Proctology; and Radiology.

The following officers were elected for 1932-33:

President-Elect—Dean Lewis, Baltimore.

Vice-President — Rudolph Matas, New Orleans.

Secretary—Olin West, Chicago.

Treasurer—Austin A. Hayden, Chicago.

Speaker of the House of Delegates—Frederick C. Warnshuis, Grand Rapids, Mich.

Vice Speaker of the House of Delegates—Albert E. Bulson, Fort Wayne, Ind.

Board of Trustees (Term Expires 1937)—Arthur W. Booth, Elmira, N. Y.; Rock Sleyster, Wauwatosa, Wis.

Judicial Council (Term Expires 1937)—E. P. Sloan, Bloomington, Ill.

Council on Medical Education and Hospitals (Term Expires 1939)—Ray Lyman Wilbur, Washington, D. C. (Term Expires 1938)—F. A. Washburn, Boston.

Council on Scientific Assembly (Term Expires 1937)—Frank H. Lahey, Boston. (Term Expires 1934)—Irvin Abell, Louisville, Ky.

Dr. E. H. Cary, Dallas, Texas, the President-Elect for 1931-32, was installed as President for 1932-33.

Members of the Medical Association of Georgia in attendance were as follows:

Alford, A. E. B., Bainbridge.

Anderson, William Willis, Atlanta.

Artaud, Frank E., Hapeville.

Barfield, J. R., Atlanta.

Bassett, Victor H., Savannah.

Blackford, L. Minor, Atlanta.

Boland, Frank K., Atlanta.

Boyd, Montague L., Atlanta.

Bunce, Allen H., Atlanta.

Bush, Albert R., Hawkinsville.

Chaney, Ralph H., Augusta.

Chaudron, Percy O., Cedartown.

Clark, T. H., Douglas.

Clay, Grady E., Atlanta.

Davison, Hal M., Atlanta.

Dimmock, Avary, Atlanta.

Drane, Robert, Savannah.

Ehrlich, Sigo, Bainbridge.

Elder, O. F., Atlanta.

Elliott, Walter G., Cuthbert.

Equen, Murdock, Atlanta.

Erickson, Mary Josephine, Thomasville.

Estes, H. G., Atlanta.

Fancher, James K., Atlanta.

Fincher, E. F., Jr., Atlanta.

Fountain, James A., Macon.

Fort, Arthur G., Atlanta.

Gardner, William A., Atlanta.

Goodpasture, W. C., Atlanta.

Grove, Lon, Atlanta.

Harrell, H. P., Augusta.

Herman, Emory C., LaGrange.

Holland, S. P., Blakely.

Kite, J. H., Decatur.

Kracke, Roy R., Emory University.

Lancaster, E. M., Shady Dale.
 Martin, J. R., Jr., Atlanta.
 McCord, James R., Atlanta.
 Myers, William H., Savannah.
 Newsom, N. J., Sandersville.
 Oppenheimer, R. H., Emory University.
 Pendergrass, Robert C., Americus.
 Phillips, W. Parks, LaGrange.
 Powell, Vernon E., Atlanta.
 Roberts, C. W., Atlanta.
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 Roberts, Stewart R., Atlanta.
 Shields, J. A., LaFayette.
 Stampa, Samuel, Atlanta.
 Stewart, Calvin B., Atlanta.
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 Wahl, Ernest F., Thomasville.
 Wall, J. Cox, Eastman.
 Ware, D. B., Fitzgerald.
 Weaver, O. H., Macon.
 Webb, Fred L., Macon.
 Wise, B. T., Americus.
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MAY 9-10-11-12, 1933

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 Marion T. Benson, Atlanta.
 R. V. Martin, Savannah.
 S. T. R. Revell, Louisville.
 Arthur G. Fort, Atlanta.

Fraternal Delegate to State Dental Society

M. E. Winchester, Atlanta.

Fraternal Delegates to Other State Meetings

To visit Alabama: Frank P. Norman, Columbus;
 B. T. Wise, Americus.
 To visit Florida: Arthur G. Fort, Atlanta; Albert F. Saunders, Valdosta.
 To visit North Carolina: Stewart R. Roberts, Atlanta; C. D. Whelchel, Gainesville.
 To visit South Carolina: J. K. Quattlebaum, Savannah; C. C. Aven, Atlanta.
 To visit Tennessee: H. C. Sauls, Atlanta; Thos. E. McBryde, Rockmart.

*Committee for Study of Maternal Mortality
and Infant Deaths*

M. Hines Roberts, Atlanta, Chairman.

First District

Guy G. Lunsford, Millen.

A. J. Waring, Savannah.

Second District

I. M. Lucas, Albany.

S. L. Cheshire, Thomasville.

Third District

T. J. McArthur, Cordele.

J. C. Patterson, Cuthbert.

Fourth District

Thomas S. Bailey, Newnan.

S. C. Rutland, LaGrange.

Fifth District

C. B. Upshaw, Atlanta.

M. Hines Roberts, Atlanta.

Sixth District

E. F. Griffith, Eatonton.

J. D. Applewhite, Macon.

Seventh District

P. O. Chaudron, Cedartown.

J. E. Lester, Marietta.

Eighth District

John W. Simmons, Brunswick.

G. T. Crozier, Valdosta.

Ninth District

C. L. Ayers, Toccoa.

D. H. Garrison, Tate.

Tenth District

S. S. Smith, Athens.

William A. Mulherin, Augusta.

Ex Officio

T. F. Abercrombie, Atlanta, Director Public Health for Georgia.

L. G. Hardman Loving Cup

W. A. Selman, Atlanta, Chairman.

William A. Mulherin, Augusta.

Chas. H. Watt, Thomasville.

William H. Myers, Savannah.

Chas. C. Harrold, Macon.

Allen H. Bunce, Atlanta.

THE WAY OF HEALTH

A pageant written by Mrs. T. P. Waring, dedicated to Dr. Robert Koch to celebrate the fiftieth anniversary of his discovery of the tubercle bacillus, was given at the auditorium in Savannah on Tuesday, May 31st, at 8:15 p.m., under the auspices of the Georgia Medical Society, Auxiliary to the Georgia Medical Society and the Georgia Congress of Parents and Teachers with the co-operation of the Savannah Health Center and the City Health Department, under the direction of Mrs. Fred Wessels, assisted by Mrs. Joseph Mendes.

Mrs. Lee Howard was chairman of the Casting Committee, which included other members, as follows: Mrs. George Ross, costumes; Mrs. G. L. Youmans, properties; Mrs. William Shearouse, auditorium; Neca Lucre, dancing; Mrs. O. H. Paddison and Mrs. E. A. Hinley on space reserved for blue ribbon. Music was furnished by the Firemen's band, and Catherine Fowler accompanied the dancers.

The orchestra was open for the public and the dress circle and balcony were reserved for the children receiving blue ribbons.

THE CAST

Interpreter.....Jos. H. Mendes, Sr.
Health.....Mrs. E. M. Baker, Jr.
Hope.....Josephine Gartleman

Happiness.....Mrs. William Saunders
Ailing Children.....Abercorn Students
Wizards, Astrologers, Sorcerers, and
Medicine Men.....Chat. Jr. Hi Students
Quack Doctor.....A. R. Palmer
Present Aids to Health.....49th Street School Students
Well Children.....Walters Avenue School Students
Folk Dancers.....38th Street School Students

Boy Scouts, Girl Scouts, and Girl Reserves, Public Health Nurses, Chatham-Savannah Tuberculosis Nurses, Health Officers, Drs. Basset and Larsen, Doctors, Dentists, and all pre-school children who are to enter school next year and have been examined at the summer round-up and received a blue ribbon. The children of the elementary, county, and parochial schools who have blue ribbons.

The Silver Health Cup, given by the Health Center, was awarded by Dr. Thomas J. Charlton, President of the Health Center, to the school having the highest percentage of physical defects corrected following physical examination.

The boxes were reserved for the Health Committee of the Medical Society, the officers of the Auxiliary to the Medical Society, the Health Center, Parent-Teacher Association, Dental Society, School Supervisors, Principals of Schools, Board of Education, Mayor and County officials.

Dextrocardia Secondary to Eventration of the Diaphragm: Report of an Asymptomatic Case, by L. Minor Blackford, M.D., and William Telford Booth, M.D., J. A. M. A., 98:883 (March 12), 1932.

Congenital dextroposition of the normal heart without evidence of transposition of other viscera in most cases is probably secondary to eventration of the diaphragm. A case of this type in an athletic youth has been reported. The condition has been entirely asymptomatic up to the present, and the authors believe that the position of his heart will never cause the patient any trouble. It is possible, however, that subphrenic symptoms may develop or that extraordinary increase in intraabdominal pressure, brought on by trauma or tremendous exertion, may result in rupture of the weakened diaphragm.

NEW MEMBERS FOR 1932

Barron, J. M. F., Milner.
Baskin, C. L., Temple.
Bedingfield, W. E., Rentz.
Bradford, Jos. H., Atlanta.
Brown, A. G., Waycross.
Daniel, J. W., Claxton.
Davis, Abe, Americus.
Dixon, J. L., Woodbury.
Holliday, A. C., Athens.
Kelley, J. O., Avera.
King, W. R., Tennille.
Kirkland, W. P., Manchester.
Mitchell, Frank B., Macon.
Nelson, R. M., Atlanta.
Peeler, J. E., Woodland.
Quillian, B. O., Willacoochee.
Ridgway, G. T., Royston.
Rosen, Samuel F., Augusta.
Sanford, Shelton P., Savannah.
Thomas, D. R., Jr., Augusta.

GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. ABERCROMBIE, M.D., *Director*DRAINAGE—THE SOLUTION OF
GEORGIA'S MALARIA PROBLEM

The saying "A ditch in time saves quinine" is becoming a popular slogan in Georgia counties where malaria has been prevalent for nearly two hundred years. The spade is rapidly becoming the standard instrument of warfare against the anopheline mosquito. Road machinery and convicts are being pressed into service by many counties. The Division of Sanitary Engineering of the Georgia Department of Public Health furnishes sanitary engineers to make malaria investigations, drainage surveys and supervision of drainage construction. Approximately twenty-five counties in southern Georgia are cooperating with the Georgia Department of Public Health on drainage for malaria control.

Throughout two hundred years of Georgia's history when mosquito borne diseases have ravaged homes and partially depopulated cities, causing inestimable mental anguish and economic loss, there had been a smoldering sentiment for drainage as a panacea, even before discoveries that the mosquito was a disease transmitter. This apparently had its origin as far back as 1804 at Savannah, later at Augusta and at other cities of the State. The idea of elimination of quiet water took precedence over all fantastic theories of miasma.

In 1875 the Georgia Legislature passed an act creating the State Board of Health. The law fixed the salary of the Secretary of the Board at \$1,000 per year and provided a sanitary commissioner to serve without salary, but to receive expenses while on actual duty. In 1877 the legislature discontinued the appropriation and the Board went out of existence. It is interesting to note, however, that during the tenure of office of the President of the Board he made recommendations for state-wide drainage to prevent malaria. By an act of the legislature this Board was revived in 1904 and has grown to the present organization of the Department of Public Health.

Active work of the State Board of Health was beginning at a logical time, for nearing the close of the century, or in 1897. Sir Ronald Ross proved that malaria parasites could be conveyed by the anopheline mosquito, and in August, 1900, it was proved that the *Stegomyia* mosquito could transmit yellow fever. Yellow fever is now practically

extinct, but malaria is still our formidable enemy.

Beginning with the century a new era dawned and demonstrations at Havana and at Panama immediately followed and today we are following methods of those pioneers who blazed the trail in the tropics. Education is a slow process and nineteen years later a chapter on Malaria Control in Georgia was in the embryonic stage.

In 1919 the United States Public Health Service in co-operation with the State Board of Health made a malaria survey in one Georgia county and determined the fact that approximately 82 per cent of the people had Estivo-Autumnal malaria infection. In April, 1920, there was established the Division of Sanitary Engineering of the State Board of Health. Malaria personnel was furnished by the United States Public Health Service and during that year there were nine surveys and malaria investigations made in cities and towns in Georgia resulting in definite drainage programs for malaria control. This type of urban malaria control continued with personnel furnished by outside health agencies until 1923, when the State Board of Health employed an engineer to take this work in charge. Records of investigations will show that at the beginning of this work malaria in towns and villages was a very serious public health problem. Physicians' records showed 75 per cent or more of their practice was malaria. The nature of the work consisted of malaria studies and investigations, drainage surveys, and training of local sanitary inspectors to control mosquitoes. By the end of 1925 there began a period of hydro-electric development in that portion of the State where malaria is most prevalent. Experience by this time had proven that serious malaria epidemics occur following such development. Consequently, this necessitated regulations by the State Board of Health to prevent such occurrences.

In 1925 the State Board of Health passed such necessary regulation. By 1930 the water area conforming to these regulations amounted to approximately 150,000 acres, comprising 38 projects meeting such regulations, seven of which were during mosquito producing season applying a larvacide to the areas three times monthly, while the others had effective clearing and other conditions rendering this type of control unnecessary.

Due to the unprecedented rainfall in 1928 and 1929 malaria infection in rural populations became a most serious problem resulting in as high as 43 deaths from malaria in one county and a total for the State in one year of 677. This greatly stimulated sentiment for rural malaria control. One outstanding result was a special tax levied by one county for co-operative demonstration work in conjunction with the United States Public Health Service, the State Board of Health and the County Board of Health. Cost of actual control methods was financed by the county. The United States Public Health Service has a field demonstration headquarters in this county and research and demonstrations are proving valuable for malaria control.

In 1930 the Division of Sanitary Engineering began offering county officials service for drainage surveys and construction supervision. Suggestions were made that the county officials use highway grading and other machinery available for drainage in addition to surplus convict labor. This method began with service by one engineer from the State Board of Health headquarters. The demand for the work necessitated adding a district engineer in 1930 and another district engineer in 1931, both chiefly for malaria control. During the past year there were twenty-five counties co-operating on this plan. In 1931 the total lineal feet of drainage under this plan by machinery was 145,650 and by convict hand labor 334,870 feet or a total of 712,940 lineal feet or 135 miles of drainage eliminating 314 ponds which were causing malaria. Thus the criminal in Georgia is being redeemed as a public benefactor and the effect will be a more healthful environment.

In summarizing two hundred years of Georgia's pestilence and economic distress, due to mosquito borne diseases, is there wonder why industrial progress has been slow? Consider only one hundred and twelve years ago when our chief seaport lost in less than three months over 70 per cent of its population. Then again in this same city just 78 years ago in a few months over 1,000 persons died of mosquito borne diseases. Fifty-one persons were buried in one day and two-thirds of the white population left the city; a mortality rate at times of 80 per 1,000. Think of our State Capitol, Milledgeville, losing each year from 1808 to 1813 five per cent of its population from mosquito borne diseases. Two of our early established towns, which promised to rival the greatest seaports of the South Atlantic coast, deserted on account of

mosquito borne infections. Think of the sacrifice of education, commerce, agriculture and manufacturing. How many of Georgia's young men who might have attained fame and fortune were taken in the blossom of life from preventable disease? Consider these facts and it is readily seen that the economic loss in Georgia from mosquito borne diseases has been enormous. But the victory is not yet won. Our annual mortality and morbidity rates are yet seriously high and our economic loss from malaria is appalling. We can only say that progress being made is gratifying and we believe that Georgia will now go forward with malaria control stimulated with a new ambition for the preservation of health and for a heritage rich in happiness and prosperity.

COMMUNICATION
COMMUNICABLE DISEASES

To the Editor:

The importance of the reporting of communicable diseases has been recognized for a long time. Up to the present it has not been possible for the State Health Department to adequately assist physicians in their epidemiological problems, because of the lack of trained personnel and the necessary machinery to perfect the work in this office.

Through the co-operation and assistance of the Rockefeller Foundation we have been able to establish a Division of Epidemiology as an integral part of our organization. This division has directly under its supervision the control of communicable diseases, the collection and reporting of morbidity conditions throughout the State, and the assembling of pertinent facts relative to communicable diseases gathered through direct epidemiological studies in co-operation with health officers and physicians in their respective communities. We invite the physicians of the State to avail themselves of the services of this division whenever occasion arises.

We trust that physicians generally will report morbidity conditions as they occur in their respective communities—to the local health officer, if there is one, and in counties where there are no health officers directly to this office on the weekly morbidity cards sent to your office. The recording of name, address, sex, and age is of great importance in the proper tabulation of morbidity conditions which are to be used in epidemiological studies.

The department announces with pleasure a plan to furnish physicians with monthly morbidity reports by counties and of towns and cities above 2,500 population. It has long been our desire to furnish this service to physicians. We trust it will prove helpful and beneficial. Through this service physicians generally will learn of the prevalence of communicable diseases throughout the State. Your reports will greatly assist in making this project a success.

T. F. ABERCROMBIE, M.D.,

Director, Georgia Department of Public Health.

GEORGIA STATE NURSES ASSOCIATION

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Headquarters

131 Forrest Avenue, N. E., Atlanta.

LARGE SCHOOLS SHOULD TAKE THE LEAD

It is believed that there are 395 fewer schools of nursing in the United States today than there were two years ago, according to the Grading Committee. In spite of this it appears there has been very little, if any, reduction in the number of students entering schools during the past year. This must mean that the student who entered the small school in her own community has been re-entered in another school in order to complete her course; and that the new applicant, who formerly entered the small school, has been accepted by a larger school.

And so, while standards have been raised, the actual production of graduates is still going on. Thus it is apparent that the nursing profession will continue overcrowded until the large schools attack the problem, taking the major responsibility for reorganization of nursing service which will greatly diminish the student personnel and make graduate service basic.

Statistics show that until very recently there were more than 2,200 so-called schools of nursing in this country. From these more than 22,000 were graduated in 1931. The number of schools, most of which are not actually schools in the accepted educational sense, and the number of graduates, is overwhelmingly too large. This situation is responsible for the overcrowded condition in the nursing profession today. Not only must the number of schools be greatly reduced, but the percentage of students entering accredited schools must be limited to a number somewhere within the scope of the needs of the sick.

Fewer and better schools, fewer and better nurses, should be the watchwords of all those who, in any way, must take responsibility

for nursing service in the future. This means a more careful selection of students and a better type of instruction to those who meet entrance requirements. In turn, this means better prepared instructors, supervisors and administrators.

Dr. E. P. Lyon, Dean of the Medical School of the University of Minnesota, in an article in the April number of the *Minnesota Journal of Education*, says: "While there are exceptions in the medical profession—doctors who talk about the overeducated nurse, and whose ideal nurse is hands and feet—the preponderant opinion is in favor of a well educated, cultivated and intelligent personnel in the nursing profession. The advances in medicine and the consequent complicated and responsible duties developing upon nurses make it more essential than formerly that nurses have a good mental makeup. A recent medical writer has said 'The nurse of the future must have more initiative, resourcefulness, stability, a clearer conception of her responsibilities to the patient, the patient's family and the community, and in general she must have better cultural and technical education'."

Doctor Lyon agrees with nurses and physicians that the training school regime develops valuable habits; that student nurses learn the necessity for careful observation which goes for a splendid preparation for life in any sphere of activity; but that the point is that young women go into schools with the expectation of being able to earn a livelihood as nurses, and under present conditions many of them are doomed to disappointment.

He urges teachers to send into nursing only their good students, and scores the practice found, "even among arts college deans, who are wont to drop their failures on the nursing school doorstep." Doctor Lyon says: "This

practice should be vigorously combated, since it is almost sure to mean disappointment; a nursing profession further deteriorated, and the present deplorable condition prolonged. When one considers the tragedy that may follow failure to recognize the difference between 0.2 per cent and a 2.0 per cent solution, say of cocaine; or the difference between 'gram' and 'grain', one wishes for more intelligent rather than less intelligent nursing personnel."

Though costs should not be made the basis for comparison in turning from student to graduate service, it is now felt by many hospital people who have made a study of the matter and who have experimented with various types of nursing service, that through efficient methods graduate service is found more economical in the final analysis. Graduate service has been adopted with success by many hospitals throughout the country, including a number in this state.

All of the problems that confront nursing today are common to Georgia. Facts available indicate that we have even more handicaps than perhaps the average state. It is going to be a long, uphill problem to bring Georgia's nursing situation into favorable position; but it can be done when hospital owners and administrators recognize their responsibility to nursing in the same unbiased way they have assumed responsibility for the care of the sick through the present plan, which has unwittingly brought about such disastrous results to the nursing profession.

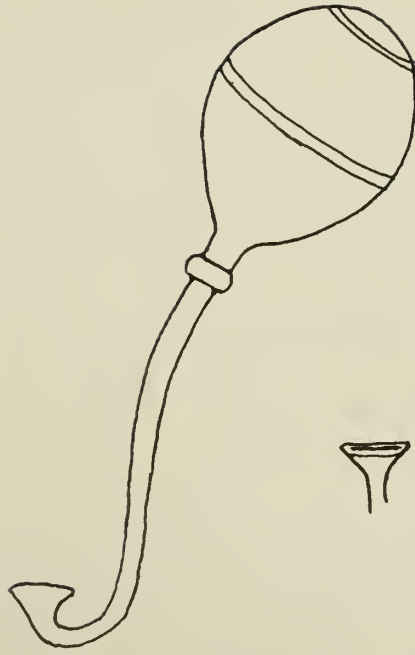
UPPER LID AND SUPERIOR CUL de SAC IRRIGATOR

W. J. BURDASHAW, M.D.
Augusta

Having never seen such an instrument catalogued nor described in any of the textbooks of the eye, I devised the instrument herein described and had it manufactured by Chas. Lentz & Sons, Philadelphia.

This is a syringe patterned after a Desmarres lid elevator and used to hook up under the upper lid, and while acting as a retractor to lift the upper lid away from the globe at the same time the upper cul de sac may be irrigated with any cleansing lotion or medication so desired.

It has been my experience that in everting the upper lid to remove a foreign body there will be in some cases none present, and when the upper lid is turned back in place



UPPER LID ELEVATOR AND CUL DE SAC IRRIGATOR

the patient will still contend that a foreign body is in the eye; the lid will be everted again and there it is. The depth of all cul de sacs cannot be brought to view by introducing an elevator under the everted lid, and in these cases even with a local anesthetic it is very disagreeable to the patient to introduce a moist applicator to the depth of the sac.

Hypoglycemia and heart disease may be confused. Our patient's tachycardia subsided after an attack and was further improved by exercise.

A plan of treatment is offered for this particular case.

In other cases, such as conjunctivitis, after thoroughly irrigating the lower cul de sac and everting the upper lid and irrigating that surface, probably the first thing to meet the gaze when the upper lid is turned back in place is a large flake of mucus pass over the cornea after the eye is blinked several times.

It is a good plan to irrigate the upper cul de sac routinely before cataract operations and in cases of positive culture the depth of the sac can be reached by cleansing lotions.

The accompanying sketches are self-explanatory. The instrument is made of chrome-plated metal; the tip is flattened as a Desmarres elevator, the length of the instrument and the size of the bulb are made to fit an eight-ounce lotion bottle.

WOMAN'S AUXILIARY

OFFICERS

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 President-Elect—Mrs. J. Bonar White, Atlanta.
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 Second Vice-President—Mrs. C. Thompson, Millen.
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 Parliamentarian—Mrs. Charles Hinton, Macon.
 Editor—Mrs. C. W. Roberts, Atlanta.

PRESIDENT'S REPORT*

MRS. EDNA EPPES LATTIMORE

Savannah

As I come to the end of this year of service as your President, a feeling of sadness comes o'er me that is not akin to pain, and resembles sorrow only as the mist resembles the rain; a sadness that is mingled with thankfulness and gratitude. To me, it is like the end of a perfect day, and the words of that well-known song sing themselves over and over in my thoughts: "Do you know what the end of a Perfect Day can mean to a tired heart, when the sun goes down . . . and the dear friends have to part? Well, this is the end of a perfect day, near the end of a journey too, but it leaves a thought that is big and strong, with a wish that is kind and true. For memory has painted this perfect day with colors that never fade, and we find at the end of a perfect day the *soul* of a *friend* we've made!" It is just *this* that has made this year mean so much to me—the cementing of bonds of friendship. I wish to express my deep appreciation of the co-operation that auxiliary workers all over the state have shown, and as for my officers, and chairmen—they have been simply wonderful! The credit for what has been achieved this year must go to them. It has been my privilege and pleasure to be in constant touch with them in their work, and no one knows more fully than I just how thoroughly and efficiently they have carried out their parts.

It is not necessary for me to tell you at length about the year's activities, for these will be presented to you in the reports that are to follow, but I shall merely mention the outstanding features:

1. The sponsoring of "Regional Health Conferences", held by the Georgia Department of Public Health; (this is the

first time in history that a state health department has called on the state medical auxiliary to help!)

2. Assistance given the colored doctors' wives;
3. Public Relations with other women's organizations effected by "Program-Teas", in the larger cities;
4. Health Education work in all the auxiliaries;
5. The showing of Health Films;
6. The pushing of "Hygeia", the health magazine of the A. M. A.
7. Organization work;
8. Press and Publicity work;
9. Legislation;
10. And last *but not least*—our Students' Loan Fund.

Your President represented you at the annual convention of the Georgia Nurses' Association by giving an address of welcome, and being their guest at their banquet; she has been on the State Board of the Georgia Child Welfare Committee; she has served on the Public Service Council of the Savannah Woman's Federation; and she was invited to attend the meetings and banquet of the State Federation of Business and Professional Women's Clubs. All of which is a tribute to the recognition of the growing importance of our state organization.

In conclusion, let me extend to everyone present a cordial and urgent invitation to attend in Savannah next year the Bi-centennial Celebration in honor of the settling of Georgia. You will enjoy it, and we shall enjoy having you, and

Joys that are shared are doubled,
 And friends that are won, stay friends.
 For even if folks *seem troubled*
 Good time in this town never ends;
 So come and join with us in *living*,
 And learning from day to day—
 That *Life is made up of giving*,
 And helping our friends by the way!

*Report to the Woman's Auxiliary, Savannah, Ga., May 18, 1932.

PRESIDENT INSTALLED*

MRS. S. T. R. REVELL
Louisville

This honor which you have bestowed upon me touches my heart very deeply. To me, it is a far greater distinction and honor to be President of the Woman's Auxiliary to the Medical Association of Georgia than to be the head of any other organization in the State, because it is the one that is so closely allied to the life, to the very spirit of your husband and, therefore, it can but strengthen the tie that binds you.

I wish that the Auxiliary and the Medical Association might bear the same relationship to each other as Longfellow describes of that of man and woman;

"As unto the bow, the cord is,
So unto man is woman;
Though she bends him, she obeys him,
Though she draws him, yet she follows:
Useless each without the other."

I fully realize that with the great honor comes equally as great responsibility. To this, I pledge my best efforts and I earnestly ask your hearty co-operation.

*Address before the Woman's Auxiliary, Savannah, Ga., May 19, 1932.

PRESENTATION OF GAVEL*

MRS. J. J. PILCHER
Wrens

Madam President, Members of the Convention and Visitors:

To my lot has fallen a most delightful task—that of presenting to the Auxiliary to the Medical Association of Georgia a small gift from the Auxiliary to the Jefferson County Medical Society.

There are a number of reasons why we would like to make this gift to you: First, because of the splendid work you are doing over our state as exemplified in our own county, then, too, in appreciation of the great honor you have done us in selecting from our members one whom we love and esteem for so active a part in this great work.

In thinking of some suitable gift to present this august body our minds in attune with the minds of thousands of others in this bi-centennial year have traveled back over historical events. We thought of those

days just following the American Revolution. We recall that in 1777 right here in this beautiful city of Savannah, the first Constitution of the state of Georgia was adopted. And a little later on, in 1786, Governor Telfair was elected governor of our state. The law-making powers had assembled alternately in Savannah and Augusta, but these places were so distant for representatives from the northern section of the state to reach, that Governor Telfair appointed three commissioners to select a place for the State Capitol. These men were to select a location within twenty miles of Galphinton, then the center of population. The town to be called Louisville in honor of Louis XVI of France. The commissioners were to provide for the erection of all state buildings. Various causes hindered the completion of these plans, among them, lack of sufficient funds and the death of the building contractor. The state house was ten years under construction, but in 1795 the new town was designated as a permanent capitol. The first session of the legislature in a permanent capitol was held in Louisville, May 1796. This first session was of grave importance as the whole country was wrought up over the Yazoo Fraud, so all the most powerful men of the time attended. The Honorable Noble Wimberly Jones of Savannah was elected President of the body, and two outstanding acts were passed: First, the Yazoo Fraud law was declared void, the legislators thought it such a disgrace to the state that the law had been passed that they decided to burn the papers relating to the shameful sale. Also, the second state constitution under which Georgians lived for seventy years was framed.

We know from history that the state house was not completed in time for this session and tradition, handed down from sire to son in a number of different old families of Louisville says that the assembly was brought to order in the parlor of the Governor's mansion. As the mansion was only a very modest frame building, the parlor proved inadequate for the crowd. The day being hot, the president suggested: "Gentlemen, let us have seats placed and hold our meeting under the shade of the oaks in the grove to our left." This was done. Many of Louisville's older citizens remember quite well when there stood several of these fine old trees; there stands only one now, lonely sentinel keeping watch over the silent scene of a colorful and vibrant past.

From this historical tree the Mayor of Louisville allowed us to cut a limb. It gives

*Presentation address before the Woman's Auxiliary, Savannah, Ga., May 18, 1932.

me pleasure to present to you a gavel made from this bit of historical wood and in so doing, express to you the appreciation and best wishes of the Auxiliary to the Jefferson County Medical Society. Thank you.

ACCEPTANCE OF GAVEL*

MRS. EDNA EPPES LATTIMORE
Savannah

In the name of the Woman's Auxiliary to the Medical Association of Georgia I wish to thank you for this kind gift. As a gift it has every qualification: it is ornamental, it is useful, and it will last as long as the Auxiliary lasts. But to us it has a deeper significance—it represents good-will and fellowship—and it is for that which we are striving. So we hope that from year to year as this gavel calls our meetings to order, it will be responded to by a larger number of Auxiliaries until every county in our State is organized. We know that this is a wish dear to the heart of our Organization Chairman, Mrs. Revell, and we hope that this gavel will be a tailorman to make it come true.

*Address before the Woman's Auxiliary, Savannah, Ga., May 18, 1932.

Mrs. Walter Jackson Freeman, President of the Woman's Auxiliary to the American Medical Association, attended the Savannah meeting. She spoke on "What the Auxiliary Is Going to Be". She praised the work done in public health by Mrs. J. Bonar White, Atlanta, Chairman of the Health Committee. Mrs. Freeman outlined the work done in Delaware, where the Health Campaign was promoted in co-operation with the Tuberculosis Association and Cancer Control Work.

Mrs. William Shearouse, Savannah, President of the Auxiliary to the Georgia Medical Society, presented a beautiful corsage to Mrs. Freeman. A similar gift was presented to Mrs. Ralston Lattimore, Savannah, retiring President of the Woman's Auxiliary to the Medical Association of Georgia, by Mrs. Lee Howard.

HONOR ROLL FOR 1932

1. Randolph County—Dr. G. Y. Moore, Cuthbert, September 5, 1931.
2. Hancock County—Dr. H. L. Earl, Sparta, April 13, 1932.
3. Dougherty County—Dr. I. M. Lucas, Albany, May 17, 1932.

The Eighty-Fourth Annual Session of the Medical Association of Georgia will be held in Macon, May 9, 10, 11, 12, 1933.

GEORGIA PEDIATRIC SOCIETY

The regular annual meeting of the Georgia Pediatric Society was held at a luncheon in the Hotel De Soto Savannah, Ga., on Friday, May 20, 1932, the President, Dr. Charles E. Boynton, presiding.

Immediately following the luncheon the business meeting of the organization was held. In the absence of the Secretary, Dr. Roger W. Dickson, the minutes of the last meeting were read by the President.

The welfare of the organization and a program for the ensuing year were discussed informally and the initiation of an active program left in the hands of the new officers.

The society reaffirmed its pledge of active support to the Follow-Up Committee of the White House Conference on Child Health and Protection.

The aims and purposes of the American Academy of Pediatrics were fully discussed. Members of the society were urged to affiliate with this organization. The society approved the activities of the American Academy of Pediatrics and pledged active support to them during the ensuing year.

Pediatric representation on the scientific program of the Georgia Medical Society was discussed. It was brought to the attention of the organization that three excellent papers on pediatric subjects were presented this year. The officers and members of the Society were urged to co-operate with the Program Committee of the State organization for full representation at the meeting to be held in Macon in 1933.

The following officers were elected for the ensuing year:

President—Dr. M. Hines Roberts, Atlanta.
Vice-President—Dr. Mercer Blanchard, Columbus.
Sec'y-Treasurer—Dr. Roger W. Dickson, Atlanta.

THIRD DISTRICT MEDICAL ASSOCIATION

The Association held its fiftieth semi-annual meeting at Montezuma on June 15th as the guest of the Macon County Medical Society. Titles of papers on the scientific program were as follows:

"Purulent Endocarditis—Case Report," Dr. E. B. Davis, Byromville.

"Some Advancement in Therapeutics," Dr. C. P. Savage, Montezuma.

"Coronary Occlusion," Dr. V. P. Sydenstricker, Augusta.

"Tumors of the Small and Large Bowel," Dr. R. C. Pendergrass, Americus.

"Diseases of the Thyroid Gland and Their Treatment," Dr. C. H. Richardson, Macon.

Address by Dr. Marvin M. Head, Zebulon, President of the Association.

Report by Dr. J. C. Patterson, Cuthbert, Councillor for the Third District.

Barbecue was served at 7 o'clock in the afternoon.

The Southern Pediatric Seminar, Saluda, N. C., offers several complimentary scholarships to physicians in small cities and villages of Georgia. The Seminar will be held from July 25th to August 6th, inclusive.

BOOK REVIEWS AND ABSTRACTS

BOOK REVIEWS

Hemorrhoids, The Injection Treatment and Pruritus Ani. By Lawrence Goldbacher, M.D., Philadelphia, Pa. Published by the F. A. Davis Company, Philadelphia, 1931; 207 pages; 31 illustrations. Price \$3.50. Second revised edition.

This is a most excellent book in which the subject is treated in a concise, practical manner rather than an exhaustive review. It begins with a chapter on surgical anatomy and definition of terms used. A working classification of hemorrhoids—external, internal, and mixed types—is given and the treatment for each outlined. The injection treatment of internal hemorrhoids is discussed in detail. A 5 per cent solution of phenol in cotton seed or similar vegetable oil is the solution advocated. The instruments necessary for the injection procedure are described and the advantages of the anoscope-speculum, as devised by the author, set out. The rationale of injection treatment is briefly given and the rules to be observed in this procedure are definitely specified. A brief comparison of this manner of treatment is made with the operative method and a number of proctologic opinions regarding the injection method are given. The subject is brought to a close by the presentation of a series of illustrative cases which is most convincing.

The last thirty pages of this book are devoted to the subject of "Pruritus Ani", "a by-word for unsuccessful treatment". The occurrence, etiology, pathology, symptoms, and diagnosis are first outlined. The presence of seatworms as a cause for this condition is mentioned. In a certain percentage of those cases without any demonstrable cause (Idiopathic) the author has found subtegumentary channels and tissue spaces and believes them to be a definite factor in the pathology of Pruritus Ani. For the treatment of this condition he advocates the injection of phenolized oil beneath the perianal skin in the areas where itching is felt.

EDGAR BOLING, M.D.

Courts and Doctors. By Lloyd Paul Stryker. New York, The Macmillan Company, 1932; 236 pages. Price \$2.00.

The author of this book was for many years general counsel for the Medical Association of the State of New York, and had personal charge of the legal policy of the association and the defense of its members who were sued for malpractice. In addition to being learned in the law, Mr. Stryker evidently is a charming and cultured gentleman. In this book he offers advice to protect doctors against unwarranted attack upon their professional character.

It is a delightful book, one that in itself is well worth reading. It is so fully annotated, moreover, that it should help a lawyer in defending a physician accused of malpractice. The chapters on the expert witness are so fine that they are worth more than

the price of the volume. Though only published in January, it has already been reprinted twice. The reviewer can recommend it without qualification, both for the sheer pleasure of reading and for its invaluable counsel.

L. M. B.

The Doctor in Court. By Edward Huntington Williams, M.D. Contains 289 pages with no illustrations. Publishers: The Williams & Wilkins Company, Baltimore, Md.

There is no good reference book on the proper attitude and behavior of a medical witness. This book is most helpful to the physician who is to appear in the legal arena. It is a collection of actual anecdotes and incidents from trials in which physicians have testified. Many of the cases are amusing and the book as a whole is intensely absorbing.

The author is an alienist with forty years of experience. He says, "Every doctor is potentially an expert witness. It may not be of his own desire or seeking, usually quite the reverse. But whether he wishes it or not, sooner or later he will be hailed into court to give testimony in connection with some case. It is a harassing, distressing experience, particularly to one not accustomed to such ordeals."

The appendix is written by Charles W. Fricke, LL.M., J.D., Judge of the Superior Court for Los Angeles County. It deals with expert testimony and suggests much advice for the medical witness.

This book is entertaining and you will want to read it at one sitting.

E. A. B.

Orthopedic Surgery. By Sir Robert Jones, Bart., K.B.E., C.B., Ch.M. (Liverpool); F.S.C.R. (England, Ireland, and Edinburgh); F.A.C.S. (U. S. A.); President Emeritus, British Orthopedic Association. St. Thomas Hospital, London; Royal Liverpool Children's Hospital and Royal Infirmary, London; and Robert W. Lovett, M.D., F.A.C.S.; late John B. and Buckminster Brown Professor of Orthopedic Surgery in Harvard University; in collaboration with Nathaniel Allison, M.D., F.A.C.S., Professor of Orthopedic Surgery, Harvard University; Frank R. Ober, M.D., Instructor of Orthopedic Surgery, Harvard University, and Harry Platt, M.D., M.S., F.A.C.S. (England); Clinical Lecturer in Orthopedic Surgery, University of Manchester. Second edition revised; 817 pages, with 792 illustrations. New York, William Wood & Company, 1929. Price \$11.

In the preface of this edition the authors have endeavored to give the practitioner and the medical student a plain and practical account of those pathological conditions which they believe may properly be classified under the unsatisfactory name of Orthopedic Surgery.

The revised edition contains new chapters or sec-

tions on (1) Affections of tendons, muscles, and fasciæ; (2) Peripheral nerve lesions; (3) Pyogenic affection of bones; (4) Vascular lesions of the extremities; (5) Amputations and artificial limbs.

It offers to the general practitioner of medicine and the medical student a concise review of the field of orthopedic surgery. The illustrations and drawings are excellent and the radiograms are well chosen.

This book will be a useful addition to any doctor's library, particularly those who deal with orthopedic work.

BOOKS RECEIVED

Food Allergy—Its Manifestations, Diagnosis and Treatment, With A General Discussion of Bronchial Asthma. Albert H. Rowe, M.D., Lecturer in Medicine in the University of California Medical School, San Francisco; Chief of the Clinic for Allergic Disease of the Alameda County Health Center, Oakland, Cal.; Consultant in Allergic and Metabolic Disease, Highland Hospital; President of the Association for the Study of Allergy, 1927-8. Contains 442 pages. Publishers: Lea & Febiger, Washington Square, Philadelphia, Pa. Price \$5.00.

The Doctor and His Investments—Financial Policy and Technique for the Physician. Merryle Stanley Rukeyser, B. Lit., M.A., Financial Editor, Medical Economics and Dental Survey; Financial and Editorial Writer, New York American and Associated Papers; Associate in Journalism, Columbia University; Author "Financial Advice to a Young Man", "The Common Sense of Money and Investments," and "Investment and Speculation". Contains 330 pages. Publishers: P. Blakiston's Son & Co., Inc., 1012 Walnut Street, Philadelphia, Pa.

Asthma and Hay Fever in Theory and Practice. Part I: Hypersensitiveness, Anaphylaxis and Allergy. Arthur F. Coca, M.D., Professor of Immunology, Cornell University Medical College, Clinical Professor in Medicine-Elect, New York Post-Graduate Medical School, and Editor of the Journal of Immunology. Part II: Asthma, by Matthew Walzer, M.D., Instructor in Applied Immunology, Cornell University Medical College, Deputy Attending Physician Clinic of Applied Immunology, New York Hospital. Chief of Allergy Clinic Jewish Hospital of Brooklyn. Part III: Hay Fever, by August A. Thommen, M.D., Lecturer in Medicine, University and Bellevue Hospital Medical College, Director of the Allergy Clinic, Medical College Dispensary, New York University. Contains 851 pages. Publishers: Charles C. Thomas, Springfield, Ill., and Baltimore, Md. Price \$8.50.

Psychology and Psychiatry in Pediatrics: The Problem. Report of the Subcommittee on Psychology and Psychiatry, Bronson Crothers, M.D., Chairman. A publication of the White House Conference. Contains 146 pages. Publishers: The Century Company, 353 Fourth Avenue, New York City.

Body Mechanics: Education and Practice. Report of the Subcommittee on Orthopedics and Body Mechanics, by Robert B. Osgood, M.D., Chairman. A publication of the White House Conference on Child Health and Protection. Contains 166 pages. Publishers: The Century Company, 353 Fourth Avenue, New York City.

Growth and Development of the Child. Part III—Nutrition. Report of the Committee on Growth and Development, by Kenneth D. Blackfan, M.D., Chairman. White House Conference on Child Health and Protection. Contains 532 pages. Publishers: The Century Company, 353 Fourth Avenue, New York City.

Modern General Anesthesia—A Practical Handbook. James G. Poe, M.D., Lecturer on General Anesthesia in the Medical and Dental Department of Baylor University; Anesthesiologist of Baylor University Hospital of Dallas; Consulting Anesthetist to the Shriners' Hospital for Crippled Children, and Parkland Hospital, Dallas, Texas. Second Edition, completely revised and enlarged with twelve illustrations and two charts. Contains 231 pages. Publishers: F. A. Davis Company, 1914-15 Cherry Street, Philadelphia, Pa. Price \$2.50.

Obstetric Education—A publication of the White House Conference. Report of the Subcommittee on Obstetric Teaching and Education. Contains 302 pages. Publishers: The Century Company, 353 Fourth Avenue, New York City. Price \$3.00.

Nutrition Service in the Field—A publication of the White House Conference. Child Health Centers; A Survey. Contains 196 pages. Publishers: The Century Company, 353 Fourth Avenue, New York City. Price \$2.00.

Human Sterilization. The History of the Sexual Sterilization Movement, by J. H. Landham, Ph.D., J. D., J. S. D., The College of the City of New York. Contains 341 pages. Publishers: The Macmillan Company, 60 Fifth Avenue, New York City. Price \$4.00.

NEWS ITEMS

Dr. L. G. Hardman, Commerce, former Governor of Georgia, presented a "Loving Cup" to the Association at its eighty-second annual session held in Atlanta, May 12-15, 1931, with the stipulation that it be stored in the vault of the office of the Treasurer of Georgia. On this cup shall be engraved annually or from time to time the name, date, and achievement of anyone who has, in the judgment of the Association, attained any outstanding problem of public health or made any discovery in medicine or surgery. At the Savannah meeting a committee was appointed to select

the name of someone who has made such attainment as required to be eligible for his name to be engraved on the "Loving Cup". The members of the committee are as follows: Dr. W. A. Selman, Atlanta, Chairman; Dr. William A. Mulherin, Augusta; Dr. Chas. H. Watt, Thomasville; Dr. William H. Myers, Savannah; Dr. Chas. C. Harrold, Macon; Dr. Allen H. Bunce, Atlanta.

The Randolph County Medical Society met at Cuthbert on June 2nd. Dr. W. G. Elliott, Cuthbert, gave a review of the proceedings of the eighty-third annual session of the American Medical Association, held at New Orleans, May 9-13, inclusive. Dr. F. M. Martin, Shellman, and Dr. J. C. Patterson, Cuthbert, gave an outline of the proceedings of the general meetings and the House of Delegates of the Medical Association of Georgia at the Savannah meeting. Dr. I. W. Irvin, Albany, read a paper entitled "Disease of the Optic Nerve Due to Infection of Accessory Sinuses".

The graduating exercises of the Annie Mills Archbold Training School for Nurses at Thomasville were held on Thursday, May 12th, on the lawn of the John D. Archbold Memorial Hospital. The program consisted of music by a local choir, and addresses by Rev. J. McD. Richards, pastor of the First Presbyterian Church, and Dr. Chas. H. Ferguson, a member of the hospital staff. Diplomas were presented to the nurses by Miss Annie L. Wade, superintendent of the school. Those graduating were: Misses Evelyn Cooper, Margaret Greene, Ruth Hatcher, Leila Mae Martin, Jennie McQueen, Marguerite Sapp, and Vivian Tyndall.

Five colored nurses were graduated from the John D. Archbold Memorial Hospital Training School at Thomasville, on Friday, May 13th. A large number of people witnessed the commencement exercises of this class, the largest in the history of the school. The program consisted of piano and vocal solos, negro spirituals, and addresses by Prof. W. G. Smith of Douglas High School, and Dr. John A. Davis-James, a member of the staff of the hospital. The nurses who received diplomas were: Ruth Peyton, Johnnie Kerbo, Willie Mae Larkin, Beatrice Latimer, and Luella Branche.

Dr. Archie Griffin, Valdosta, entertained the members of the Lowndes County Medical Society at a dinner at the Hotel Valdes, Valdosta, on May 4th.

The Walker County Medical Society met at the courthouse in LaFayette on May 6th. Dr. J. S. Alsobrook, Rossville, discussed Medical Ethics.

Staff meeting of the Crawford W. Long Memorial Hospital, Atlanta, was held in the dining-room of the institution on May 12th. Dr. George Williams, Atlanta, discussed "Menorrhagia Due to Hypothyroidism"; Dr. W. W. Daniel, Atlanta, gave a case report on "Addison's Disease"; Dr. B. McH. Cline, Atlanta, showed moving pictures of "Peroral Endoscopy".

The Gordon County Medical Society met at the office of Dr. Z. V. Johnston, Calhoun, on May 4th.

Dr. and Mrs. H. G. Huey, Homerville, entertained the members of the Ware County Medical Society at the Musgrove Hotel, Homerville, on May 4th.

The Fulton County Milk Commission gave a symposium on "Certified Milk" at the Academy of Medicine, Atlanta, on May 26th. The program consisted of an address by Mr. H. N. Heffernan, Field Secretary of the National Commission; "Uses of Certified Milk," Dr. L. D. Hoppe, Atlanta; "Medical Inspection," Dr. T. L. Byrd, Atlanta; "Veterinary Inspection," Dr. Chas. C. Rife, Atlanta, Veterinarian.

The staff of St. Joseph's Infirmary, Atlanta, held its monthly meeting in the dining-room of the institution on May 24th.

Mr. James P. Faulkner, Atlanta, was elected President of the Georgia Council for Child Health and Protection at a recent meeting held in Savannah; Dr. William A. Mulherin, Augusta, Vice-President.

The Georgia Medical Society held its regular meeting on May 24th. Dr. J. C. Metts, Savannah, read a paper entitled "Migraine Headache"; Dr. Lawrence Lee, Savannah, gave a case report, "Gangrenous Herpes".

The Medical Staff meeting of the Atlanta Tuberculosis Association was held at the office of the Association, 282 Forrest Avenue, N.E., Atlanta, on May 31st. Dr. W. W. Jones, Atlanta, gave case reports.

The Georgia Urological Society held its third annual meeting in Savannah, May 18th. The scientific program consisted of the following titles for papers: "Tuberculosis of the Kidney—Symptoms, Treatment, and Apparent Prevalence in Georgia," Dr. Wallace L. Bazemore, Macon; "Abnormal Ureters," Dr. S. A. Kirkland, Atlanta; "Perinephritic Abscess," Dr. E. B. Anderson, Americus.

The New York Polyclinic Medical School and Hospital, New York City, opened its Marine Roof atop its new wing on Thursday, May 26th, at 3:00 p.m. The Honorable Grover A. Whalen, General Chairman, George Washington Bicentennial Commission, New York City, officiated. The ceremonies were attended by about three hundred people.

The Fulton County Medical Society met at the Academy of Medicine, Atlanta, June 2nd. Dr. Edgar Boling, Atlanta, gave a case report, "Traumatic Perforations of the Jejunum"; Dr. Chas. E. Rushin, Atlanta, gave a clinical talk, "Etiology and Roentgenography of Varicose Veins"; Dr. J. Calvin Weaver, Atlanta, read a paper entitled "Diseases and Accidents of the Blood Vessels of the Brain". The discussions were led by Dr. Hugh Cochran, Dr. William A. Smith, and Dr. Vernon E. Powell, all of Atlanta.

The Eye, Ear, Nose & Throat Club of Georgia held its annual meeting in Savannah, May 18th. The following officers were elected: Dr. Thomas H. Hall, Macon, President; Dr. J. Allen Smith, Macon, Secretary-Treasurer.

The Wilcox County Medical Society met at Pineview, May 26th. Dr. S. R. Mitchell, Pineview, read a paper entitled "The Science of Practicing Medicine". The society meets regularly on the fourth Thursday afternoon of each month.

The Georgia Urological Association held its annual meeting in Savannah during the eighty-third annual session of the Association. The members of the Association were entertained at dinner by the Savannah members. Officers of the Association are: Dr. Ernest Corn, Macon, President; Dr. William Shearouse, Savannah, President-Elect, and Dr. Allen F. Caldwell, Atlanta, Secretary-Treasurer.

The Emory Alumni Association held its annual meeting on June 6th. Dr. Kemp Malone of Johns Hopkins University was the Alumni Day orator. Dr. Allen H. Bunce, Atlanta, President, presided.

The Chattahoochee Valley Medical and Surgical Association will hold its next annual session at Radium Springs, Albany, July 12-13.

Emory University School of Medicine, Emory University, gave its annual clinics June 6-11, inclusive. The Georgia Department of Public Health and the United States Public Health Service co-operated in the "Clinic on Venereal Diseases". The physicians in attendance were given an opportunity to get any kind of clinic in which they were interested and without cost.

Dr. Jack C. Norris, Pathologist to Grady Hospital, will leave the city in a few days for Chicago. He will spend three months in the Department of Pathology at the University of Chicago studying the histological methods of tumor diagnosis and the classification and radiosensitivity of malignancies. He will also begin a research problem on pellagra, having recently been the recipient of a research fund from the Scientific Investigative Committee of the American Medical Association for this purpose.

OBITUARY

Dr. James M. Tribble, Lithonia; Georgia College Eclectic Medicine and Surgery, Atlanta, 1895; aged 67; died at a private hospital in Atlanta on May 21, 1932. He was born and reared in Walton County, resided in Decatur for ten years and after receiving his degree in medicine removed to Lithonia, where he practiced for thirty-seven years. Doctor Tribble was highly esteemed by hundreds of people and former patients. He was a member of the Masonic Lodge and the Methodist Church. Surviving him are three daughters, Mrs. Myrian McGabbe, Atlanta; Mrs. J. S. Fleming, Warsaw, N. C., and Miss Sara Joe Tribble, Lithonia; one son, H. L. Tribble, Lithonia. Funeral services were conducted from the residence by Dr. T. A. Elliott and interment was in the Lithonia Cemetery.

Dr. John Wesley Gillespie, Albany; University of Georgia Medical Department, Augusta; died at his home on May 20, 1932. He was one of Albany's oldest citizens and a man who was widely loved throughout the community. Surviving him are his widow; two daughters, Mrs. Henry G. Sperry, Albany, and Mrs. Harold Todd, Cynthia, Ky.; one son, Dr. John W. Gillespie, Tempe, Ariz. Funeral services were conducted by Rev. Reese Griffin from the First Methodist Church. Interment in Oakview Cemetery.

Dr. Charles M. Chamblee, Adairsville; University of Georgia Medical Department, Augusta, 1899; aged 58; died at a private sanitarium in Atlanta on May 11, 1932. He was a prominent physician. Surviving him are his widow; two daughters, Mrs. Gilreath and Mrs. Gus Boaz, both of Adairsville. Funeral services were conducted from the First Baptist Church and interment was in the Adairsville Cemetery.

Dr. Sterling Price Holland, Blakely; member; Tulane University of Louisiana School of Medicine, New Orleans, 1908; aged 51; died at a private sanitarium in Dothan, Ala., on May 29, 1932. He was born and reared in Alabama and moved to Blakely fifteen years ago. In addition to being active in the practice of medicine, he owned extensive farming lands and became known as one of the foremost citizens of the community. Doctor Holland had endeared himself to all his acquaintances. He was a member of the Tri-County Medical Society and the Baptist Church. Surviving him are his widow; three sons, S. B., Jr., and L. F. Holland, both of New Orleans, and students at Tulane University of Louisiana School of Medicine, and Ned Holland, of Blakely. The funeral services were conducted from the First Baptist Church by Rev. J. S. Hartsfield, Eastman, and Rev. Spencer B. King, Blakely. Interment was in the Blakely Cemetery. Members of the Tri-County Medical Society formed an honorary escort.

Dr. John B. Barwick, Blythe; University of Georgia Medical Department, Augusta, 1880; aged 82; died at his home on May 25, 1932. He had practiced medicine in Blythe and surrounding community for more than forty-five years. Doctor Barwick was favorably known throughout the community as a physician and citizen. Surviving him are two daughters, Mrs. Beulah Hardy, Ivy, Ga., and Mrs. Clara Shirling, Blythe. Rev. E. H. Clark conducted the funeral services at the graveside and interment was in Sandersville Cemetery.

Archie D. Carr, St. Louis (*Journal A. M. A.*, Dec. 19, 1931), states that no matter what the cause, hypoglycemia may be manifested by stupor, amnesia, muscular twitching or convulsions and a number of less striking symptoms, such as restlessness, weakness, anxiety and fatigability. Diagnosis of various functional and organic nervous diseases may be made if the condition of hypoglycemia is not considered. The diagnosis of hypoglycemia depends on a careful history of preceding symptoms, the recognition of coexisting diseases and, above all, the determination of the blood sugar level.

MEMBERS REGISTERING AT THE EIGHTY-THIRD ANNUAL SESSION SAVANNAH, MAY 17, 18, 19, 20, 1932

A

Abercrombie, T. F., Atlanta
Alden, Herbert, Atlanta
Allen, H. D., Milledgeville
Aldrich, F. N., Brunswick
Alsobrook, J. S., Rossville
Anderson, E. B., Americus
Anderson, W. W., Atlanta
Applewhite, J. D., Macon
Artman, R. T., Augusta
Atkinson, H. C., Macon
Aven, C. C., Atlanta
Ayers, A. J., Atlanta
Ayers, C. L., Toccoa

B

Baggett, L. G., Atlanta
Bailey, C. Y., Savannah
Baker, Elliott L., Jr., Atlanta
Baker, J. O., Savannah
Ballenger, E. G., Atlanta
Bancker, E. A., Jr., Atlanta
Barber, W. E., Atlanta
Barrett, Clara B., Atlanta
Barrow, Craig, Savannah
Bashinski, Benj., Macon
Bassett, Victor H., Savannah
Bazemore, Wallace, Macon
Beard, J. S., Edison
Beasley, B. T., Atlanta
Bedingfield, W. E., Rentz
Bedingfield, W. O., Atlanta
Bennett, J. C., Jefferson
Bennett, W. H., Sylvania
Benson, Marion T., Atlanta
Bernard, G. T., Augusta
Bishop, E. L., Atlanta
Blackford, L. Minor, Atlanta
Blackmar, F. B., Columbus
Blanchard, Mercer, Columbus
Boland, Frank K., Atlanta
Born, W. H., McRae
Boynton, C. E., Atlanta
Brawner, James N., Atlanta
Broderick, J. Reid, Savannah
Bunce, Allen H., Atlanta
Burford, Robert S., Brunswick
Burkhalter, John T., Savannah
Burns, J. K., Gainesville
Burpee, C. M., Augusta
Bush, Albert R., Hawkinsville
Butler, J. H., Augusta
Byne, J. M., Jr., Waynesboro

C

Calhoun, F. P., Atlanta
Campbell, J. L., Atlanta
Cason, W. M., Sandersville
Chandler, J. H., Swainsboro
Chaney, Ralph H., Augusta

Charlton, Thomas J., Savannah
Cheek, O. H., Dublin
Chisholm, Julian F., Savannah
Chisholm, Julian F., Jr., Savannah
Clark, J. J., Atlanta
Claxton, E. B., Dublin
Clay, T. S., Savannah
Cline, B. McH., Atlanta
Coile, Frank W., Winterville
Coker, Grady N., Canton
Cole, W. A., Savannah
Coleman, Warren A., Eastman
Colvin, J. T., Jesup
Compton, H. T., Savannah
Cook, J. M., Sardis
Cone, R. L., Statesboro
Crane, Chas. W., Augusta
Crawford, H. C., Atlanta

D

Dancy, William R., Savannah
Daniel, John W., Savannah
Daniel, John W., Jr., Savannah
Davis, A. W., Warrenton
Davison, Hal M., Atlanta
DeCaradeuc, St. J. R., Savannah
DeLoach, L. A., Savannah
Demmond, E. C., Savannah
Downing, E. E., Newington
Drane, Robert, Savannah
Dunn, Laurence B., Savannah

E

Echols, George L., Milledgeville
Edwards, D. B., Savannah
Egan, M. J., Savannah
Elliott, John L., Savannah
Emery, W. B., Atlanta
Elrod, J. O., Forsyth
Epting, M. J., Savannah
Equen, Murdock, Atlanta
Eubanks, George F., Atlanta
Exley, H. T., Savannah

F

Faggart, George H., Savannah
Fincher, E. F., Jr., Atlanta
Findley, C. W., Vidalia
Fitts, John B., Atlanta
Floyd, Earl, Atlanta
Floyd, W. E., Statesboro
Fort, Arthur G., Atlanta
Fountain, James A., Macon
Fowler, A. H., Smyrna
Fowler, M. F., Atlanta
Fowler, R. W., Marietta
Franklin, R. C., Swainsboro
Fuller, George W., Atlanta
Fullilove, H. M., Athens

G

Gaines, Lewis M., Atlanta

Garrison, D. H., Tate
Gausemel, S. D., Atlanta
Gay, J. Gaston, Atlanta
Gholston, W. D., Danielsville
Gibson, B. H., Allenhurst
Gleaton, E. N., Savannah
Goldsmith, William S., Atlanta
Goolsby, R. Cullen, Jr., Macon
Graham, Rufus E., Savannah
Greer, C. B., Brunswick
Gunter, G. O., Newton

H

Hall, J. I., Macon
Hall, Thomas H., Macon
Hardman, L. G., Commerce
Harman, G. L., Savannah
Harris, R. V., Savannah
Harrold, Chas. C., Macon
Harrold, Thomas, Macon
Haygood, M. F., Cornelia
Head, Marvin M., Zebulon
Hesse, Herman W., Savannah
Heriot, George W., Jr., Savannah
Hicks, Chas. L., Dublin
Hilsman, A. H., Albany
Hodges, J. H., Hapeville
Holmes, L. P., Augusta
Holton, C. F., Savannah
Horne, G. T., Augusta
Houston, W. R., Augusta
Howard, H. L., Springfield
Howard, Lee, Savannah
Hubert, M. A., Athens
Hunt, K. S., Griffin

I

Irvin, I. W., Albany

J

Jackson, J. H., Barnesville
Jennings, W. D., Augusta
Johnson, G. H., Savannah
Jones, Jabez, Savannah
Jones, John P., Savannah

K

Kandel, H. M., Savannah
Kay, James B., Byron
Kelly, G. Lombard, Augusta
Kennedy, R. L., Metter
King, J. L., Macon
Kirkland, Spencer A., Atlanta

L

Lambert, E. A., Denton
Landham, J. W., Atlanta
Lang, G. H., Savannah
Lanier, J. E., Moultrie
Lanier, L. F., Sylvania
Lattimore, Ralston, Savannah
Larson, Alfred, Savannah
Lee, H. G., Millen

Lee, Lawrence, Savannah
 Levington, Henry, Savannah
 Levy, M. S., Augusta
 Lewis, John R., Louisville
 Lewis, S. J., Augusta
 Long, W. V., Savannah
 Lord, C. B., Jefferson
 Lunsford, Guy G., Millen

M

Malone, S. B., Sandersville
 Maloy, C. J., Helena
 Maner, Edwin N., Savannah
 Mann, F. R., McRae
 Martin, F. M., Shellman
 Martin, R. V., Savannah
 Martin, William O., Jr., Atlanta
 Massenburg, G. Y., Macon
 Massoud, M. A., Pineora
 Metts, J. C., Savannah
 Michel, H. M., Augusta
 Minchew, B. H., Waycross
 Mixson, W. D., Waycross
 McAllister, J. M. C., Rochelle
 McArthur, Thomas J., Cordele
 McCall, J. T., Rome
 McCarver, W. C., Vidette
 McClure, J. H., Cornelia
 McDonald, E. M., Jefferson
 McDougall, Calhoun, Atlanta
 McElveen, J. M., Brooklet
 McGee, H. H., Savannah
 McTyre, H. Edw., Savannah
 Mercer, J. E., Vidalia
 Mooney, A. J., Statesboro
 Moore, H. M., Thomasville
 Morrison, A. A., Savannah
 Moss, W. L., Augusta
 Mulherin, William A., Augusta
 Mulkey, Q. O., Millen
 Myers, William H., Savannah

N

Neville, R. L., Savannah
 New, J. E., Dexter
 Newman, W. A., Macon
 Newton, R. G., Macon
 Nicolson, Perrin, Atlanta

O

Olmstead, G. T., Savannah
 Oppenheimer, Russell H., Emory
 University

P

Palmer, J. I., Thomasville
 Palmer, J. W., Ailey
 Parham, J. B., Cornelia
 Parkerson, I. J., Eastman
 Paullin, James E., Atlanta
 Patterson, J. C., Cuthbert
 Peacock, E. S., Harrison
 Penland, J. E., Waycross
 Perkins, M. E., Millen
 Pittman, C. S., Tifton
 Ponton, T. R., Augusta

Portman, H. J., Augusta
 Pruitt, M. C., Atlanta
 Purse, Ashby, St. Simons Island
 Q
 Quattlebaum, Julian K., Savannah

R

Reavis, W. F., Waycross
 Redfearn, J. A., Albany
 Redmond, C. G., Savannah
 Revell, S. T. R., Louisville
 Rhodes, R. L., Augusta
 Richardson, C. H., Macon
 Ridley, C. L., Macon
 Riner, C. R., Savannah
 Ritch, Thomas G., Jesup
 Roberts, C. H., Atlanta
 Roberts, C. W., Atlanta
 Roberts, M. Hines, Atlanta
 Robertson, J. R., Augusta
 Rogers, A. A., Commerce
 Rogers, J. V., Cairo
 Rogers, T. E., Macon
 Rosen, Samuel F., Augusta
 Rouglin, Louis C., Atlanta
 Rozar, A. R., Macon

S

Sage, Dan Y., Atlanta
 Sanford, S. P., Savannah
 Sanchez, S. E., Barwick
 Saunders, Albert F., Valdosta
 Scales, S. F., Carrollton
 Schenck, H. C., Atlanta
 Schwalb, Otto W., Savannah
 Selman, W. A., Atlanta
 Shanks, E. D., Atlanta
 Sharp, C. K., Arlington
 Sharpley, H. F., Jr., Savannah
 Sharpley, J. G., Savannah
 Shaw, L. W., Savannah
 Shearouse, William, Savannah
 Simmons, J. W., Brunswick
 Simmons, Walter E., Metter
 Sinkoe, Samuel J., Atlanta
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 Smith, E. J., Hahira
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 Smith, S. S., Athens
 Smith, W. K., Pembroke
 Sydenstricker, V. P., Augusta

T

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 Thomas, Marion R., Savannah
 Thompson, C., Millen
 Thompson, D. N., Elberton
 Thompson, W. C., Dublin
 Tidmore, T. L., Atlanta
 Tippins, H. L., Savannah
 Tolleson, H. M., Hahira
 Touchton, George L., Savannah

Train, John K., Savannah
 U
 Upchurch, W. A., Atlanta
 Upchurch, W. E., Atlanta
 Usher, Chas., Savannah

V

Vinton, Luther M., Atlanta
 W
 Wahl, Ernest F., Thomasville
 Waits, Chas. E., Atlanta
 Walker, D. D., Macon
 Ware, R. M., Fitzgerald
 Waring, A. J., Savannah
 Waring, T. P., Savannah
 Wasden, C. N., Macon
 Waters, L. T., Savannah
 Waters, W. C., Atlanta
 Watkins, E. C., Brooklet
 Watson, O. O., Macon
 Watt, Chas. H., Thomasville
 Weaver, O. H., Macon
 Webb, Fred L., Macon
 Welborn, T. W., Hinesville
 Wells, W. F., Atlanta
 Wheat, R. F., Bainbridge
 Whelan, E. J., Savannah
 Wilcox, Everard A., Augusta
 Williams, L. A., Abbeville
 Williams, L. W., Savannah
 Williams, P. L., Cordele
 Willis, C. H., Barnesville
 Willis, L. W., Bainbridge
 Wilson, Walter S., Savannah
 Wood, James A., Atlanta

Y

Youmans, H. D., Lyons
 Young, W. W., Atlanta

Z

Zbrank, L. J., Savannah

GUESTS

Alvarez, Walter C.,
 Rochester, Minn.
 Lewis, Dean, Baltimore, Md.
 Mithoefer, William,
 Cincinnati, Ohio

VISITORS

Brown, Chas. T.; Guyton
 Gray, F. D.; Orlando, Fla.
 Howell, J. R.; Aiken, S. C.
 Johnston, B. R.; Estell, S. C.
 Kindred, John J.; New York City
 Mayo, H. B., Jr.; Atlanta
 McLeod, R. F.; South
 Jacksonville, Fla.
 Peeple, J., Estell, S. C.
 Seckinger, Daniel L.;
 Baltimore, Md.
 Van De Vrede, Jane; R. N.,
 Atlanta
 (Georgia State Nurses' Ass'n)
 Vallotton, J. Ralph; Augusta
 Macon meeting, May 9-12, 1932.

THE SCIENTIFIC EXHIBITS EIGHTY-THIRD ANNUAL SESSION

Savannah

PHOTOGRAPHS OF CLINICAL CONDITIONS IN CHILDREN

WILLIAM WILLIS ANDERSON, M.D.

Atlanta

This exhibit consisted of drawing, photographs, and prints of x-ray films of some of the more unusual conditions occurring in infants and children, as: Enlarged thymus before and after x-ray treatment; pyloric stenosis; pulmonary tuberculosis, miliary pulmonary tuberculosis, and chronic discharging tuberculous empyema; dextrocardia (situs inversus); spina bifida occulta; chondrodystrophy; osteogenesis imperfecta; rickets; progressive muscular atrophy; pseudo-hypertrophic muscular dystrophy, etc.

CORONARY ARTERY DISEASE

EVERT A. BANCKER, JR., M.D.

Atlanta

The central figure of the exhibit was a large drawing of the anterior and posterior surfaces of the heart showing the distribution of the coronary blood flow.

The original electrocardiograms taken upon ten patients with coronary disease were shown. Four of these patients are still living.

The hearts from three of the fatal cases were exhibited with the coronary arteries dissected to show the lesions. Three microscopes were focused upon sections from the lesions in these hearts.

Three enlarged drawings of the electrocardiographic evidence of coronary disease were displayed.

Cardiac literature from the American Heart Association was distributed, giving advice to those who had heart disease and showing the latest classification of heart disease.

AMEBIASIS

MARK S. DOUGHERTY, JR., M.D.

Atlanta

Photographs were presented showing the morphology of endameba histolytica. Stained slides and photographs were demonstrated showing ameba histolytica in the stool, wall of intestinal ulcer and also in the wall of a liver abscess. The pathology of intestinal ulceration and liver abscess was outlined. The distribution of 228 cases reported in the South for 1928 was shown on a map. Pictures of the more common non pathogenic protozoa, ciliates and flagellates showing the difference in morphology from ameba histolytica were presented. The clinical histories of two cases, one of long standing and the other resistant to treatment were abstracted.

BRONCHOSCOPIC STUDIES

MURDOCK EQUEN, M.D.

Atlanta

Numerous sized esophagoscopes and bronchoscopes were on display. The scopes were lighted on the end showing foreign bodies which had been removed, accompanied by a short history of each case. Thus an exact view of how a foreign body appears through a scope was obtained. The exhibit also included roentgenograms illustrating end-results of intra-tracheal drainage of lung abscess; lipiodol injections for diagnosis of bronchiectasis and lung abscess; roentgenograms illustrating numerous metallic foreign bodies; and colored plates by Dr. Lawrence Abel illustrating various types of esophageal lesions due to tuberculosis, syphilis, and cancer.

X-RAY STUDIES OF THE SKULL

E. F. FINCHER, JR., M.D.

Atlanta

Fifty-five lantern slides illustrating x-ray studies of skulls were exhibited, fourteen of which showed normal variations which are sometimes confused with pathologic conditions. The remainder of the slides demonstrated pathologic conditions, being in the majority of cases either bony changes or calcium deposits. Several slides of osteomyelitis illustrating the results of radical cure were shown. Bone changes resulting from generalized pressure, simple overgrowth, destruction by tumors, or overgrowth associated with underlying tumors were illustrated by twenty slides. Sella turcica changes from pituitary tumors, suprasella cysts, and a carotid aneurysm were also demonstrated. Calcium deposits in tumors, calcified tumors, the shift of a calcified pineal gland illustrated the localizing aid of skull plates were displayed. The characteristic skull of a metastatic lesion was shown in one slide. A case of leontiasis ossea and a case of generalized invasion of the skull by a meningioma were among the rarer conditions illustrated. X-ray studies following spinal air and ventricular air injections as used in diagnostic work were also exhibited.

UROLOGICAL SPECIMENS, ROENTGENOGRAMS, AND URINARY CALCULI

EARL FLOYD, M.D.

J. L. PITTMAN, M.D.

Atlanta

Several films were shown of serial pyelo-ureterograms, using the device of Moore's. From our experience this method is of value as a diagnostic aid, with particular reference to pathologic lesions of the ureter; it is also a simple means for studying motor-phenomena of the kidney and ureter. Several drawings demonstrating the type of obstruction that may be relieved by prostatic resection were shown. One hundred and fifty urinary calculi, removed either by operative or non-operative procedures were exhibited. Several specimens were shown, one a case of carcinoma of the

bladder and horseshoe kidney in an individual 81 years of age. The latter case was rather interesting in that no other similar case has been reported in the literature.

GRANULOPENIA

ROY R. KRACKE, M.D.

Emory University

Exhibit on granulopenia, showing the distribution of the disease in the United States, with detailed studies of all the reported cases in the American literature. These studies include the age, sex, race, and occupation; the distribution by States for mortality rate in the various groups; effects of various types of therapy and other studies of interest. A large number of colored plates were shown, these illustrating the essentials of the pathology and bacteriology of granulopenia, and other blood diseases.

Much evidence was offered to show that granulopenia is a disease primary in the bone marrow. Case reports were included, illustrating the various types of leukopenic diseases. This exhibit was given the second award at the Southern Medical Association in 1931 and the first award in the American Society of Clinical Pathologists in May, 1932.

ENLARGED THYMUS GLANDS

J. W. LANDHAM, M.D.

Atlanta

Among the scientific exhibits that were viewed by many of the doctors in attendance at the meeting of the Medical Association of Georgia at Savannah, was one on "Enlargement of the Thymus Gland". This exhibit consisted of thirty-six lantern slides of enlarged thymus glands with cards giving the diagnostic and therapeutic technique to be observed in the management of such cases. Slides before and following x-ray therapy were exhibited showing the response of x-ray therapy and clinical manifestations in these cases.

SOME OF THE COMMERCIAL EXHIBITS, EIGHTY-THIRD ANNUAL SESSION

Savannah

GERBER PRODUCTS DIVISION, FREMONT CANNING COMPANY

Fremont, Mich.

By excluding oxygen during every stage of the preparation of specially grown vegetables the Gerber Products Company, Fremont, Mich., are able to conserve essential vitamin and mineral values frequently destroyed and lost under ordinary methods.

George Jones, Georgia representative, in charge of the Gerber Company's exhibit at our Savannah meeting, tells us that these were the first products of their

kind to receive the acceptance seal of the A. M. A. As a constant check on every step of their process the Gerber Company maintain a fellowship at Michigan State College.

Widespread acceptance of the products for infant feeding has also developed an extensive use by physicians for a wide variety of adult therapeutic diets.

KELLOGG COMPANY

Battle Creek, Mich.

The Kellogg Company, Battle Creek, Mich., enjoyed participation in the exhibit held in connection with the Savannah meeting and appreciated the interest which the doctors displayed.

The Kellogg Company has been in operation for the past twenty-five years as a manufacturer of breakfast cereals. Several years ago Kaffee Hag Coffee was added to its list of products. Kellogg's All-Bran and Kaffee Hag Coffee are the two products of special interest to the medical profession. All-Bran contains valuable quantities of assimilable iron and Vitamin B and, because of its bulk, is valuable in correcting cases of atonic constipation. Kaffee Hag Coffee is a blend of selected coffees from which 97 per cent of the caffeine, together with the indigestible wax, has been removed. The beverage is especially desirable to suggest for diets where an ordinary coffee or tea is forbidden.

MEAD JOHNSON & COMPANY

Evansville, Ind.

When, in 1877, the doctrine of boiling milk for infants began to be practiced, American pediatrics was born.

It has been the great opportunity and privilege of Mead Johnson & Company to be identified with a large part of this work. From the outset, this company clearly saw the importance of adapting infant-feeding to the individual requirements of the individual baby—and of keeping infant-feeding where it belongs, in the hands of the medical profession.

Mead Johnson & Company produced Dextri-Maltose in response to the active demands of pediatricians for a carbohydrate that would be tolerated better, and without the digestive disturbances that attended the use of the "sugars" then available, principally sucrose and lactose.

They gave the doctors what they asked for, in Dextri-Maltose, and went a step further by giving them something they did not ask for, but which time has proved to be eminently acceptable and helpful—the Mead policy, under which, now as then, no Mead product is advertised to the laity or carries dosage instructions. Mead Johnson & Company early evaluated the worth of viosterol, and it is a matter of no small pride that much of the first scientific work on viosterol (then "acterol") was conducted in the Mead Johnson Research Laboratory, long before the newer competition by other American manufacturers.

Mead Johnson & Company never advertise to the laity, but to the physicians only, and in whose hands the question of adequate diet is placed.

WACHTEL'S PHYSICIAN SUPPLY COMPANY

Savannah, Ga.

Wachtel's Physician Supply Company was established May 1, 1914, by Leo M. Wachtel on the site it still occupies at 410 Bull Street, Savannah. From that time until 1922 a line of hospital and surgical supplies was sold exclusively. In 1922 an ethical prescription department was added, and the store was enlarged by the leasing of the store next door and the removal of the intervening wall. This addition was given the name, Wachtel's Prescription Shop. Only the highest quality drugs are used and prompt service is a by-word. These two combined stores serve Georgia, Florida, North Carolina, and South Carolina. A branch store, known as Wachtel's, Inc., was opened in Asheville, N. C., in 1928.

MAX WOCHER & SON COMPANY

Cincinnati, Ohio

The house of Max Wocher & Son Company has enjoyed a rapid and extensive growth. Their products are now used internationally. One can go into clinics in Berlin, London, and almost any center in Europe, including Milan, Barcelona, etc., and even as far down as Capetown and find Wocher products in use in the way of operating tables and other specialties.

In America the house of Wocher is well known for its reliability and high-class products. Their long business career assures the public of the reliability of Wocher-made products.

The house was represented at the Savannah meeting by Mr. Ben Perryman.

PHRENIC EXERESIS IN TREATMENT OF PULMONARY TUBERCULOSIS

Francis B. Trudeau, Saranac Lake, N. Y. (*Journal A. M. A.*, Jan. 23, 1932), states that a sufficient number of cases of phrenic exeresis have been reported to date to warrant the statement that this operation has earned for itself a definite place in phthisiotherapy. The indications for its use are found largely in unilateral cases, in patients who do not respond well after several months of usual bed rest treatment, or who have persistent open cavities with positive sputum, or constant cough and expectoration as prominent symptoms. It is further indicated as a safeguard for those who cannot or will not receive proper treatment after leaving the sanatorium; also in the great majority of cases in which pneumothorax has been tried without success, as well as an adjunct for many pneumothorax cases, and, lastly, either preceding or following thoracoplasty, to insure a more perfect collapse. The operative dangers and complications are so rare that they may be absolutely disregarded. The results seem to show that some benefits are derived in more than half at least of the cases in which it is tried. Although one does not often see the miracles following the use of phrenicectomy that so frequently occur in many cases of artificial pneumothorax, yet in many cases it has stemmed the tide and led to the road to recovery.

NOTICE

To Taxpayers Under the Harrison Narcotic Law:

Blanks for renewal registry for the fiscal year July 1, 1932, through June 30, 1933, have been mailed all taxpayers in the district of Georgia. These forms should be executed and returned to the Collector of Internal Revenue, in Atlanta, Ga., with the tax, on or before July 1st, or penalty attaches. Tax should be in the form of certified personal check or money order.

SOFT CURD MILK

Recent interest in soft curd milks has turned more attention to the kinds of curds formed in the stomach of the infant by cows' milk and modified formulas.

A synopsis of the work done up to the present time has been made by Prof. R. M. Washburn in an article entitled "Soft Curd Milk" published in the December, 1931, number of "The Milk Dealer". He points out that, according to one series of tests, the lowest values for soft curd milk range from 14 to 34; the average from 53 to 69, and the highest from 107 to 116.

Even these lowest values for cows' milk are very high compared with human milk which shows a curd tension in the neighborhood of zero, as does also S. M. A.

It is gratifying to officials of S. M. A. Corporation to note that more attention is now being given to the characteristics of the curds. In 1921, when S. M. A. was offered in response to the demand of physicians, there was not the general understanding of the importance of the fact that S. M. A. forms soft curds very similar to breast milk.

Margaret Foulger, Alfred M. Glazer, and Lee Foshay, Cincinnati (*Journal A. M. A.*, March 19, 1932), report a case of tularemia in which: (a) auto-inoculation of two fingers of the left hand by contact with the primary lesion on the index finger seems to be highly probable; (b) the use of convalescent serum was without beneficial effects; (c) lesions of the peritoneum, both focal and diffuse, are described for the first time, and (d) a new staining method revealed the presence of *Bacterium tularensis* in tissue sections from certain of the involved organs.

DOCTOR'S SECRETARY

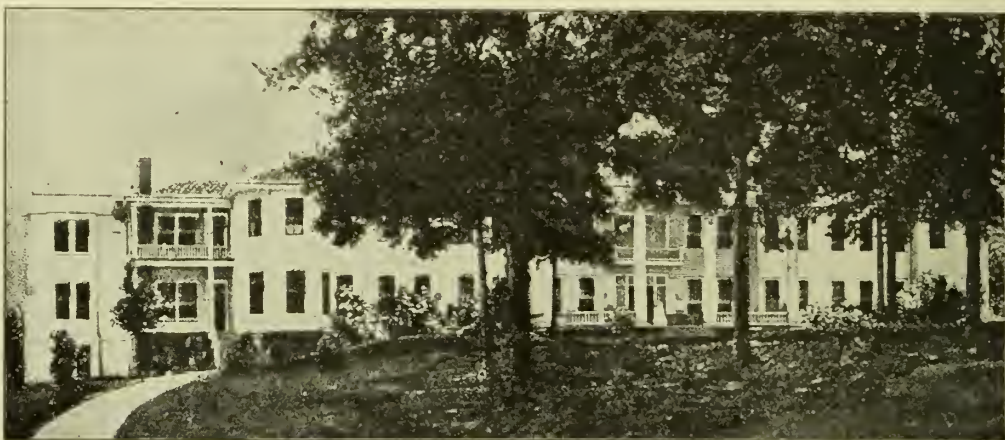
WANTED—Position as doctor's secretary; eight years' experience; best of references. Address "G", care of Journal.

Grade "A" Natural Milk

as produced by P. A. WADE is absolutely safe and thoroughly inspected. Our herd is tested by city and State officers regularly. We invite your inspection.

CHEROKEE 3095
Corner North Stratford Road and
Peachtree Dunwoody Road

DR. BRAWNER'S SANITARIUM ATLANTA, GEORGIA



A modern neuropsychiatric hospital with special laboratory facilities for the study and treatment of early cases; also a department for the treatment of drug and alcoholic addictions.

The Sanitarium is located on the Marietta Electric Car Line ten miles from the center of Atlanta, near Smyrna, Ga. The grounds comprise 80 acres. The buildings are steam heated, electrically lighted, and many rooms have private baths.

Address all communications to Brawner's Sanitarium, Smyrna, Georgia, or to the city office, 478 Peachtree Street, N. E., Atlanta, Georgia.

DR. JAS. N. BRAWNER, Medical Director.
DR. ALBERT F. BRAWNER, Resident Physician.

OUR CERTIFIED MILK...

is produced under the supervision of the Fulton County Medical Milk Commission. Certified dairies produce milk which is not only absolutely safe—but milk which contains the proper vitamin content—your assurance of the real value of milk for babies, older children, and even grown-ups!

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THE JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA

DEVOTED TO THE WELFARE OF THE MEDICAL PROFESSION OF GEORGIA
PUBLISHED MONTHLY under direction of the Council

Volume XXI

Atlanta, Georgia, July, 1932

Number 7

DIVERTICULUM OF THE DUODENUM*

THOMAS HARROLD, M.D.
Macon

It is well known that diverticula occur in all parts of the gastro-intestinal tract. The order of frequency of occurrence is usually given as follows: Colon, esophagus, small intestines, duodenum and stomach. Meckel's diverticulum is not included in this grouping. The presence of a diverticulum is of little or no importance in itself, unless it attains sufficient size to produce symptoms by pressure. However, this size is unusual except in diverticula of the esophagus. There is a tendency for food to accumulate in all diverticula and to remain there for varying lengths of time. This stagnation tends to cause irritation with resulting infection and inflammation of the sac and eventual spread of the inflammation to nearby organs, or even rupture.

Various investigators report that in large numbers of necropsies, diverticula of the duodenum occur in from 10 to 50 per cent. Obviously no such proportion of the population has symptoms referable to the duodenum. In fact until fairly recent years diverticula of the duodenum have been generally regarded as merely interesting anomalies of no clinical significance. Symptoms are probably never caused by the vast majority of duodenal diverticula, but even a cursory review of the literature of the past ten years shows that severe symptoms have necessitated operation in an increasing number of cases and that these symptoms have been relieved by removal of the diverticulum.

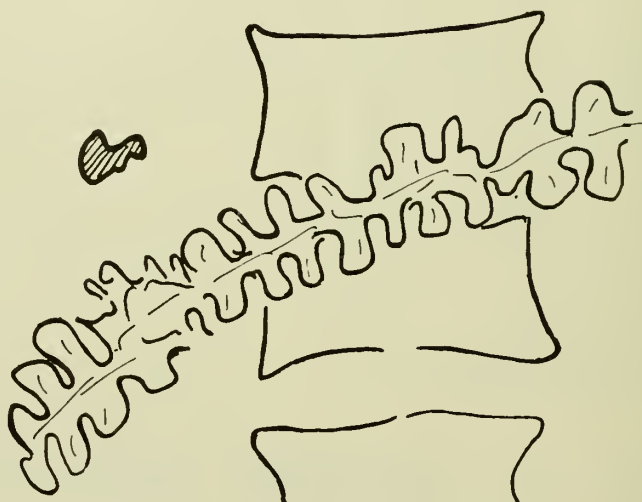
Two types of diverticula seem to be recognized by those who have studied the sub-

ject: the true congenital diverticulum and the false or acquired diverticulum. Many theories have been advanced concerning the manner of formation of the congenital type, but the one which seems best founded is that it is formed early in embryonic life by the failure of coalescence of the vacuoles which form the duodenum. One or more vacuoles become partially separated from the others, or only one part of its wall takes part in the general fusion which produces the duodenal tube. Diverticula of this type contain all the layers of the normal duodenal wall and these layers are directly continuous with the layers of the duodenum. The larger diverticula seen clinically are probably of this type. The false type of diverticulum is really a herniation of the mucosal and submucosal layers through the muscular layers. No muscle is to be found in the wall of this type. It is thought by some writers that most of these herniations follow the course of blood vessels through the muscular layers as these are points of less resistance. Pressure within the duodenum such as may be produced by obstruction or forceful coughing, vomiting and other straining may cause their formation.

Although diverticula may occur anywhere, most are in the second or descending part of the duodenum. They may appear on the anterior surface of the duodenum where they are easily accessible or they may be posterior and retroperitoneal and difficult to approach. Not infrequently they are in the region of the ampulla of Vater and imbedded in the head of the pancreas.

There are no symptoms characteristic of diverticula and the diagnosis is never made clinically except by roentgenologic examination. It is doubtful if they produce symptoms at all until they become inflamed or ulcerated or involve other organs. The symptoms are most indefinite and frequently imitate those of duodenal ulcer or disease of the

*Read before the Sixth District Medical Society at Griffin, Ga., Dec. 2, 1931.

*Fig. 1**Fig. 2**Fig. 3*

CASE I

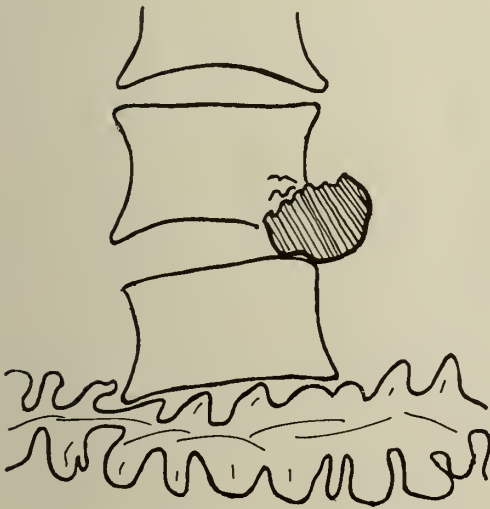
These small figures are tracings from x-ray films. Figures 1 and 2 show the pedunculated diverticulum attached to the second part of the duodenum. Figure 3 shows the retention of barium after 6 hours. The stomach is empty at this time.

gallbladder or even of the kidney. A few cases are abstracted from the literature to illustrate the symptomatology.

Ritchie and McWhorter gave a general review of the subject in 1917, collecting 76 reported cases (1). They referred to two cases reported by Bauer in 1912 in which there were inflammation and swelling of the diverticulum with resulting obstruction of the duodenum and bile ducts and death of both patients.

They reported a large diverticulum in the first part of the duodenum which was successfully resected.

There is another full paper on the subject with case report by McLean in 1923 (2). This patient had had a gallbladder filled with stones removed. She continued to have symptoms and a year or so later was operated on again. This time the pancreas was found hard and nodular and a markedly inflamed diverticulum of the duodenum was discovered imbedded in the head of the pancreas. It was removed and the patient re-

*Fig. 1**Fig. 2**Fig. 3**Fig. 4*

CASE 2

Figures 1 and 2 show a large diverticulum of the posterior surface of the first part of the duodenum. Figure 3 shows the large amount of retention in the diverticulum after six hours. The stomach was empty. Figure 4 was also made after six hours, but the patient was asked to drink additional barium to demonstrate the relationship of the diverticulum to the stomach. Barium was still present in this diverticulum after 24 hours.

covered. A similar case was reported by Lucinian in 1930 (3). This patient suffered with indigestion and pain in the epigastrium that was not relieved by soda. X-ray of the gallbladder disclosed gallstones and the gallbladder was removed. In 1929 she returned to the doctor saying she had had no relief from the symptoms for which she was operated upon. A clinical diagnosis of duodenal ulcer was made. However x-ray examination showed a diverticulum of the second part of the duodenum. At operation it was found that the sac had perforated into the head of the pancreas near

the common bile duct. The sac was resected and the patient has remained well.

These two cases are interesting because of the association of gallstones. The obvious suggestion is that the diverticulum, imbedded in the head of the pancreas, and chronically inflamed, may have caused some obstruction to the common bile duct with resulting stagnation of bile in the gallbladder. Such a condition is generally recognized as favorable to the formation of stones. So in these two cases it seems at least possible, if not probable, that the diverticulum of the duodenum

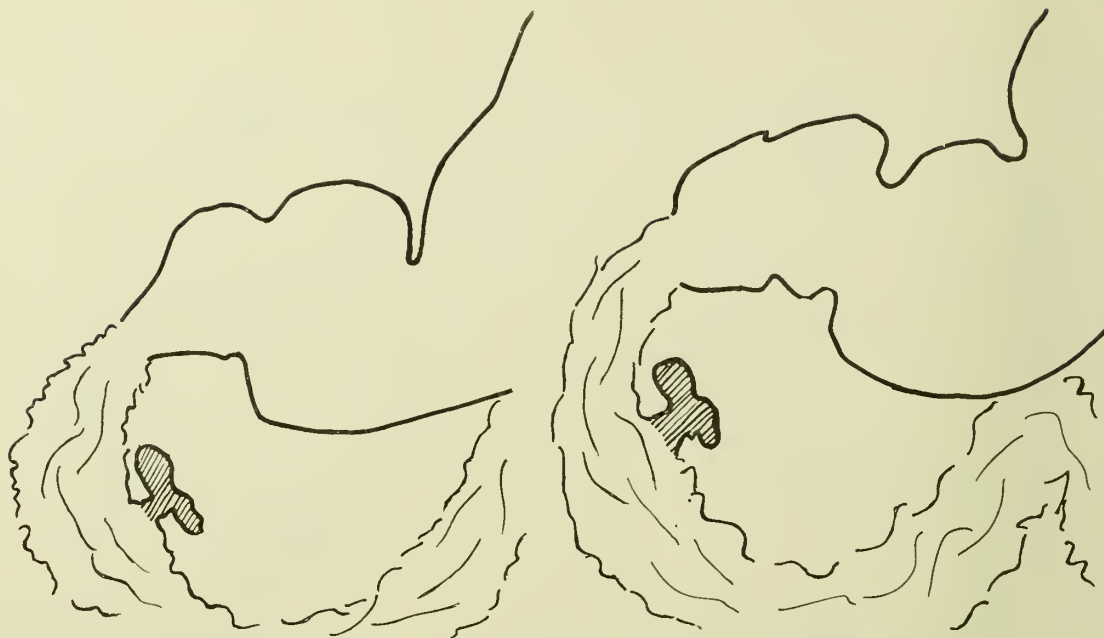


Fig. 1

Fig. 2

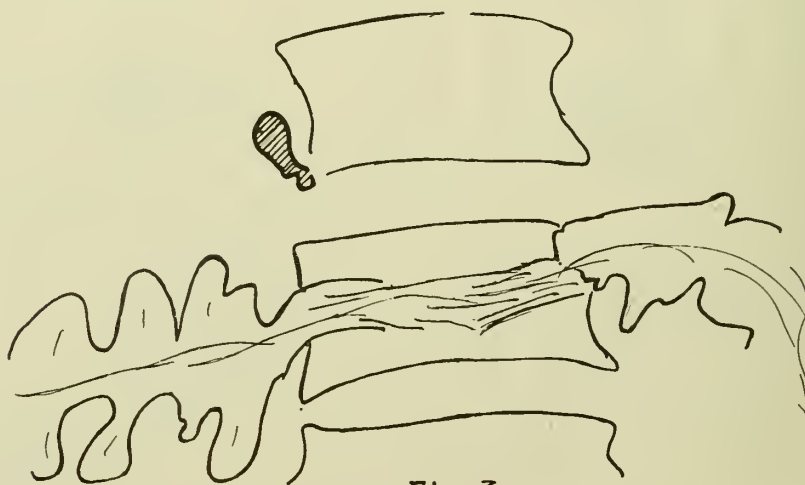


Fig. 3

CASE 3

This case is very similar to case No. 1. Figures 1 and 2 show a diverticulum of the second part of the duodenum. Figure 3 shows the amount of six hours' retention in this diverticulum.

constituted the primary and underlying pathologic processes which in turn caused pressure on the common duct, stagnation of bile, formation of gallstones and chronic pancreatitis.

Lucinian reported another case in 1931 (4). This patient had complained of acid indigestion for two or three years. Soda and milk gave only temporary relief. There was occasional pain under the right scapula. X-ray showed a large sac in the third part of the duodenum just proximal to the ligament of Treitz. Resection was attempted but was difficult and the patient died a few hours after the operation.

Two additional cases have been reported by McKinney in 1931 (5). One patient had had long standing indigestion and recently, tarry stools. The diverticulum was excised and the patient was entirely relieved of symptoms. The other patient had had dull pain in the epigastrium and indigestion and a diverticulum of the duodenum had been demonstrated roentgenologically. She had been under medical care for a year without relief but refused operation.

That a great many diverticula of the duodenum exist without symptoms or serious

consequence is unquestionable but the extracts just quoted from the literature prove that it is not unusual for diverticula to be diseased themselves and produce serious disorders in neighboring organs. It is interesting to speculate concerning how many of the disappointing results after the removal of a gallbladder full of stones or the excision of a duodenal or gastric ulcer or after a gastroenterostomy are due to an obscure diverticulum of the duodenum. If the truth could be determined, the number of such cases would probably be not inconsiderable.

The treatment of these cases that produce definite and severe symptoms is usually surgical. Medical treatment may be tried for varying lengths of time but judging from reports in the literature it is not often successful. In the nature of the condition, one would hardly expect success by medical methods. Complete excision of the sac is the obvious method of treatment. This may be a very simple excision and inversion when the diverticulum is on the anterior wall but may be difficult when the sac is retroperitoneal or buried in the head of the pancreas. Accurate localization before operation by means of x-ray is important. In the retroperitoneal type several operators have opened the duodenum and located the sac with a finger inside the duodenum and then cut down on the finger from the outside.

I have three cases that have passed through the x-ray department of the Middle Georgia Sanatorium within the past six months. There is a fourth case that has a duodenal ulcer and may also have a small diverticulum. The distortion due to the ulcer and probable adhesions make it difficult to be sure of accurate interpretation in this area.

Case Reports

Case 1.—A white man, aged 40, referred by Dr. C. C. Hinton, was first seen by me April 2, 1931.

On March 21, 1931, the patient had an attack of indigestion with pain under the left costal margin. This pain seemed to radiate across the epigastrium. He was uncomfortable lying on his right side. No nausea or vomiting or heartburn. He restricted diet to milk, toast and eggs, but without much relief. Pain was worse at night and sometimes lessened by taking a glass of milk. There was one very tender spot in the epigastrium. This attack lasted five days and then subsided. Patient seemed healthy and robust, and weighed

about 190 pounds. Physical examination was essentially negative except for some tenderness and voluntary muscle spasm in the epigastrium. Gastric analysis showed no free hydrochloric acid. X-ray examinations of the gallbladder and colon were negative.

On close questioning it was brought out that he has had two similar mild attacks within the past two years. This patient was treated by Sippey type of diet except for the alkalies and improved rapidly and soon returned to a pretty general diet. In September, 1931, there was a return of the old symptoms for several days but they disappeared under dietary treatment. Within the past week symptoms have recurred.

X-ray examination of his gastrointestinal tract showed no evidence of ulcer of the stomach or duodenum, but disclosed a small diverticulum of the descending part of the duodenum which was filled in all the immediate films and there was a small amount of retention after six hours. There was tenderness on pressure directly over the diverticulum.

Re-examination in September 1931 gave exactly the same results.

Case 2.—A white woman, aged 54, was also referred by Dr. C. C. Hinton. The patient's chief complaint was headache and pain around her eyes, suggestive of sinus infection. Her gastrointestinal history was that of long standing chronic constipation requiring either enema or a daily laxative for many years. About ten years ago she had been told that her stomach had fallen and she was kept in bed for several months on this account. She improved somewhat. She was having heartburn and sour stomach at intervals and occasionally felt nauseated. Drinking water with meals caused sour stomach. She ate little meat and drank no coffee or tea. She had two attacks of jaundice in girlhood. Some distention of the abdomen and pain on pressure all over the abdomen were noted.

X-ray examination showed a large diverticulum of the first part of the duodenum. This diverticulum remained about half-filled for six hours and probably 20 per cent remained in it for 24 hours. There was some tenderness over it on pressure.

Case 3.—A white man, aged 58, was referred by Drs. Corn and Rogers. At intervals during the past seven years this patient had had attacks of severe abdominal pain which lasted only a day. He would become rigid but would not lose consciousness. These attacks were relieved by a hypodermic. His digestion was good except that he took soda occasionally. His doctor thought that he might have kidney stones but urologic examination was entirely negative.

X-ray examination of the stomach and duodenum revealed a small diverticulum of the second part of the duodenum. It was not entirely empty in six hours.

Discussion

None of these three cases has been operated upon.

From a review of the history and findings, I believe that the first patient is suffering from recurrent attacks of inflammation of his diverticulum and that he will not obtain any permanent relief until his diverticulum is removed surgically. In the meantime, he is running some risk of perforation or other complication from this diverticulum.

The second patient is a rather thin woman with obvious ptosis of abdominal organs and is of the type that doctors class as neurasthenics. She has had rest cures. However, we know definitely that she has a large diverticulum of the duodenum and that barium remains in this diverticulum for at least twenty-four hours. I think that the burden of proof is on the doctor who disregards such a gross pathological condition.

The third patient is an obvious neurotic and his attacks have many of the characteristics of a hysterical fit. In this case I believe that the diverticulum is an incidental finding of no importance.

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FOREIGN BODY IN RECTUM

Report of Case

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A local physician prescribed medicine for a sixteen months old child who was suffering "diarrhea". The medicine was administered but the "diarrhea" continued.

I was called to treat the child and informed that the doctor who had prescribed for the child had not seen it. The thought struck me that I had better examine the child.

Upon passing my finger up the rectum I encountered two long, hard, thin objects which I extracted. They proved to be two fat wood splinters about four inches in length and one-half of an inch in diameter.

After the splinters were removed I saw a discharge of pus from the rectum. The doctor who had first prescribed for the child was called in and while he gave ether anesthesia I lanced a large rectal abscess from which drained one-half cup of pus which was the "diarrhea". The child recovered in a few days.

ADDISON'S DISEASE

Report of Case

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About eighty years ago Addison described the disease which now bears his name. During the three-quarters of a century that have elapsed since that discovery, three significant contributions have been added to our knowledge of the condition; namely, that a degeneration of the cortex of the suprarenal gland and not of the medulla is responsible for it; secondly, the advent of the Muirhead treatment in 1920; thirdly, the announcement in September, 1930, by Swingle and Pfiffner, of Princeton, of the discovery of a method of isolating the active principle of the cortex of the suprarenal in a form suitable for hypodermic or intravenous injection¹. This active principle was given the name "eschatin" from a Greek word meaning "cortex".

Subsequent to the announcement of the discovery of eschatin, these experimenters announced that by the administration of this extract, they were able not only to revive comatose suprarenalectomized animals, but were also able to restore them to a normal condition and keep them in perfect health by daily injections².

In the last twenty years³ 115 cases of Addison's disease have been observed at the Mayo Clinic. Fifty-seven of these cases were given the Muirhead treatment. Thirty-two were temporarily benefited. In twenty cases, excellent results were reported. The patients lived comfortably for from three to seven years. In twenty-five cases there was no improvement.

Since the discovery of eschatin, Rowntree, Greene, Swingle and Piffner have reported seven cases treated with this extract. Of these seven cases, five were men and two were women. Their ages ranged from 28 to 50 years. All seven were benefited by eschatin. There was a disappearance of anorexia, an increase in appetite to the point of hunger and a gain in weight. These men express the

opinion that eschatin is as essential in the crisis of Addison's disease as is insulin in the coma of diabetes.

Harrop and Weinstein⁴ reported eight cases of Addison's disease treated at the Johns Hopkins Hospital with eschatin. Since June, 1931, they have prepared their own extract. Seven of their cases were women and one was a man. Their ages varied from 32 to 50 years. All gave a positive tuberculous history. Of these eight, four are dead. The remaining four are able to carry on only under restricted conditions.

These men also showed that the lowered metabolic rate is increased by thyroid feeding, but this is offset by the fact that thyroid extract increases the weakness and fatigue. This was also true in the following case.

Report of Case

My patient, a woman, age 56 years, was first seen on October 25, 1931. She gave a history of having been chronically and obstinately constipated for the last ten years. Her appetite was delicate. She was inclined to eat very little, chiefly toasted bread and a small amount of vegetables, mostly of the starch variety. Food gave her a feeling of fullness which she termed "indigestion". This had gradually led to a feeling that any and all kinds of food were indigestible.

For the last four years she had lacked animation, had been languid. She had suffered an increasing general weakness which first manifested itself by her inability to hold objects in her hands. She would drop them, particularly if they were in her right hand. About two years ago her knees began to give way at times, causing her to fall.

Her appendix had been removed in 1928. The pathologist reported it as a chronic fibrous appendix. Her urine, at the time of appendectomy, was normal. Her blood count showed 4,380,000 red cells; 10,800 white cells; polymorphonuclear leucocytes, 77 per cent; small lymphocytes 23 per cent; hemoglobin 87 per cent.

Three years prior to the appendectomy she had been given a diet, including sauerkraut juice, for constipation and to relieve the appendix. In the summer of 1931, while in Elberton, Georgia, she was given high colonic irrigations, which resulted in temporary improvement.

On October 25, 1931, when I first saw this patient, the foregoing history was elicited. She was admitted to the Crawford W. Long Hospital for observation and study on November 7, 1931. Physical examination showed a well developed, somewhat obese female, lying quietly in bed, and in no apparent distress.

Her eyes, ears, nose and throat were normal. The thorax was symmetrical, expansion free and equal. Lungs normal. The heart was normal in size, shape and position. The sounds were regular but of poor quality. The blood pressure was 104/70. There were no murmurs. On pressure there was light tenderness over the lower right quadrant of the abdomen, but no rigidity. The spleen, liver and kidneys were not palpable. The extremities and the reflexes were normal. The skin showed an extensive maculo-papular confluent rash. Around the waistline there was a somewhat darker color to the skin in a band about two inches wide. She had recently been exposed to ultra-violet light and it was believed that this might account for the condition of the skin.

The urine showed a slight trace of albumen, but no casts. Her blood count revealed 3,400,000 red cells; 4,200 white cells; polymorphonuclear leucocytes 54 per cent; small lymphocytes 36 per cent; large lymphocytes 10 per cent; hemoglobin 65 per cent.

X-ray report of the gastrointestinal tract was as follows:

"The stomach and duodenum appear normal. There was no six hour gastric residue. There is marked decreased motility of the small intestine. There is some fixation of the cecum. The distal third of the transverse and the entire descending colon show marked spasticity. Findings show nothing but spastic colitis."

On the basis of the laboratory reports and physical findings, a diagnosis of spastic colitis with toxemia and secondary anemia was made. Accordingly, on November 9, 1931, she was put on a diet rich in protein, given ten drops of the tincture of belladonna before meals and a tablespoonful of petrolagar at bedtime. She was allowed to go home in an ambulance on this date. On November 11, 1931, she had the first voluntary bowel movement she had had in five years.

By November 25, 1931, her condition seemed unchanged in any way except that her bowels were acting daily and she was beginning to discover that she could eat food without discomfort. A consultation with Dr. John B. Fitts at this time confirmed the diagnosis and the treatment was continued.

On December 1, 1931, it was concluded that, in addition to spastic colitis, the patient was suffering from hypoadrenia and she was given adreno-cortin compound with beneficial results. Her appetite increased, her blood pressure rose to 110/70 and she began to feel very optimistic about her condition.

This treatment was continued until February 1, 1932, when it began to lose its effect. By this time, the skin was beginning to show a definitely darker color, but the mucous membranes were unchanged. Her blood pressure had dropped to 100/60 and her hemoglobin was 60 per cent. It was then decided that she was no longer responding to the oral feeding of suprarenal substance and a successful effort was made to obtain eschatin for her.

The first dose of 10 cc. was given on February 9, 1932. Her appetite increased immediately. She experienced a general feeling of well-being. On February 15, 1932, her muscles seemed to have regained some of their lost tone and she became stronger. The dose of eschatin was varied until it was found out that 5 cc. intravenously was required every other day. On February 20, 1932, adreno-cortin was resumed in addition to eschatin. This plan was followed with indifferent results until the latter part of March when the patient again became very weak. Her blood pressure now was 96/60. By this time her skin had become completely bronzed on the general surface and black in the folds. On April 10, 1931, she died, the immediate cause of death being acute dilatation of the heart.

From the study of this case, and the literature, I am led to believe that eschatin will prolong the life of an individual suffering from Addison's disease and do much to make the patient more comfortable; it is also believed that the enforced rest in bed is beneficial, particularly to those who have a previous tuberculous history. However, the final solution of the treatment of this condition will necessitate a better knowledge than we now have as to just how the cortex of the suprarenal gland exerts its influence on the body. We are a step nearer but have not yet attained a cure for this condition.

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CORONARY ARTERY DISEASE IN WORKING CLASSES

ERNST P. BOAS, New York, and SAMUEL DONNER, Hartford, Conn. (*Journal A. M. A.*, June 18, 1932), present the results of an analysis that they made of 615 males and females of the industrial class in New York City who were referred with the presumptive diagnosis of heart disease. Eighty-eight per cent of the population from which these patients were drawn were under the age of 50. Almost one-third of the 615 referred patients had disease of the coronary arteries. Of those with disease of the coronary arteries, 71 per cent were under the age of 51. This represents an exceptionally high frequency of coronary artery disease, which is all the more remarkable in view of the preponderance of individuals under the age of 50. The authors' data demonstrate that coronary artery disease, contrary to general belief, is more common, and occurs earlier in life, at least in certain groups of industrial workers. They suggest the desirability of further studies along similar lines with different racial and occupational groups.

BIRTH INJURIES TO THE CEREBRO-SPINAL NERVOUS SYSTEM*

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Augusta

Though many of these injuries have been recognized and their ultimate results accurately described for many years, large numbers of the severe and even fatal cases were not understood. Doubtless many children still-born or dying in the first few days after birth should have been classed as cerebral hemorrhage rather than asphyxia neonatorum, etc. With the advent of more careful studies by the pathologist and the pediatrician a much more comprehensive view of the subject is possible.

Injury may be directly to the nervous tissue, with or without marked lesion of bone or soft tissues, or may cause pressure from extravasated blood from injured vessels. The latter is usually more serious and more often escapes recognition. In both cases the brunt may be borne either by the nerve centers or nerve tracts.

We will first consider very briefly injuries to the nerve trunks. The lesion may be due to pressure, laceration or undue stretching of the trunk and produce temporary impairment or permanent loss of function, according to the amount of damage to tissues. The etiology in these cases is usually apparent. Difficult extraction with undue stretching of the brachial or other plexus accounts for most of the cases. With the employment of better obstetric procedure these cases are becoming less frequent. The direct pressure type is most frequently seen in the facial paralysis due to the pressure from the forceps blade. This is frequently incomplete and usually clears up promptly.

Direct injury to the cortex is usually associated with depressed fracture from contact with instruments or the bony pelvis of the mother and consequently offers little difficulty in recognition though some think concussion and concussion may occur without fracture. The latter would be more difficult to recognize.

*Read before the Richmond County Medical Society, Augusta, Ga., March 18, 1932.

When we turn to the consideration of the causes and results of hemorrhage we are confronted with a much more complicated series of problems requiring the consideration of many factors. First, we must consider the degree, direction and rapidity of the force applied as well as the presence or absence of counterforce, next the resistance of the tissues subjected to the force including the blood vessels as well as their supporting tissue and lastly the condition of the blood itself. Failure to evaluate properly these factors accounts for many errors in diagnosis, especially in cases of premature infants spontaneously expelled through ample pelves.

The scope of this paper does not admit of minutely detailed account of the mechanism of the production of intracranial injuries. Those desiring to study the subject further are referred to the monograph of Dr. Hugo Ehrenfest from which most of the following material is taken. Doctor Ehrenfest writes me that he is putting the book through another edition.

In the foetus there is a great tendency to venous rather than arterial hemorrhage, whereas, in latter life, the reverse is the case. In some cases there is more edema than actual hemorrhage which probably explains some of the more transient symptoms met with at times. In the more serious and rapidly fatal cases the hemorrhage is not found in the cortex underlying the vault of the cranium and consequently is less amenable to surgical treatment. The most common location is in the tentorium. To appreciate the manner in which laceration occurs we must consider the factors mentioned above. Gradually applied pressure or tension will not produce laceration as readily as a more rapidly applied force. Consequently the foetal skull can be gradually molded with less danger of laceration. Some have also considered the communication between the cranial cavity and the spinal canal as somewhat of a safety valve. If, however, the head is suddenly forced through an imperfectly dilated cervix or rigid perineum there is great danger of tentorial laceration with consequent hemorrhage and loss of function, especially of the respiratory center. Now, when we remember

that the tentorium is especially friable in the premature foetus we can readily understand the frequent occurrence of hemorrhage in these premature infants even though the labor may terminate spontaneously and rapidly.

These conclusions are verified by extensive study of autopsy findings in fatal cases.

Brief mention should be made of the great importance of deficiency in the coagulability of the blood. If the coagulation is markedly delayed small lesions will cause disastrous results.

Bearing in mind the foregoing considerations we can more readily appreciate the clinical aspects of the subject.

Direct injuries need little further discussion. The diagnosis is usually apparent and the treatment largely prophylactic. Care should be exercised in avoiding undue pressure and tension in carrying out operative obstetric procedure. Treatment in the milder cases is unnecessary and in the severe ones is often of little avail, though demonstrable pressure from depressed fracture should receive surgical attention. Cases of concussion and edema with little hemorrhage usually clear up promptly.

The hemorrhage cases offer an almost unlimited field for the exercise of clinical study and judgment.

Diagnosis. The history of the case, especially with reference to prematurity, difficult delivery, etc., is of value. All cases of respiratory difficulty without mechanical obstruction should be considered hemorrhagic until proved otherwise. We should be very suspicious of all cases showing marked delay in coagulation time. Twitchings, convulsions, coma, abnormal reflexes, lack of muscular tone and cyanosis or pallor are significant.

Treatment. The treatment of these cases is also largely prophylactic. When possible, rapid premature labors should be slowed up by partial anesthesia and the mother asked to refrain from forced voluntary effort. Pituitrin and similar drugs should not be used where cervix is undilated or perineum rigid. All operative labors should be conducted with minimal force and without un-

due haste. This rule applies to the after coming head as well as to cephalic cases. There is room for great improvement in handling the new born. Many times the condition is made worse by over-zealous attempts at artificial respiration, substituting a cold pack for cold plunge, pounding, whacking, etc. We should remember we are dealing with delicate structures. Drugs offer little, though respiratory stimulants have been used by some and drugs designed to increase the coagulability of the blood have been recommended. Coagulation can best be hastened by the use of whole human blood. If properly matched blood is obtainable it serves the purpose and can be injected directly into the vascular system. In most cases time does not admit of selection of properly matched donors. So 20 cc. of blood usually obtained from the father or mother may be injected into the subcutaneous tissues. This can be repeated in a few hours if indicated. These cases should receive the best of pediatric care and observation, avoiding heat loss from exposure. Careful feeding is also essential.

I think a case I once reported would be of interest in this connection. The child is now in school and seems normal in every respect. The mother was followed throughout this, her first pregnancy, showed no unusual developments and went into labor at full term. Labor was somewhat prolonged and the mother became exhausted when the head was on the perineum, so labor was terminated by low forceps extraction. There was some delay in establishing respiratory function, but after a few minutes the child seemed normal. Coagulation time was not taken at this time. On the second day the nurse noticed an attack of cyanosis, followed by mild but definite convulsive seizures and reported it at once. Dr. W. A. Mulherin was called immediately and found the coagulation time definitely prolonged. Twenty cc. of the father's blood was injected at once. The symptoms immediately subsided, but two subsequent injections were administered at twelve hour intervals with never any return of unfavorable symptoms. Had not the child been carefully observed the condition might

have been overlooked and treatment delayed.

In our hospital service we lean heavily on the pediatric service in the care of the newborn and are well pleased with results obtained with their assistance.

If we wish to draw a moral from this subject I would like to suggest the one I often try to impress upon my students. More of our mistakes are due to carelessness than to ignorance. Frequently the necessary evidence is before us and we could profit by it if we used the knowledge we already have. In the language of a German clinician, the most important step in diagnosis is "Daran zu denken", or "Be on the lookout".

A TUMOR OF THE SACROCOCCYGEAL REGION*

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Atlanta

JAMES B. BROWN, M.D.

St. Louis

Sacroccygeal tumors are generally considered to be rare; the present case makes only the third one to be diagnosed at St. Louis Children's Hospital and none has been found at Barnes Hospital. They are, however, reported in the literature with relative frequency. Hundling makes the statement that many infants die with one of these tumors unrecognized. As to the actual occurrence, Calbert places the figure at one in 34,582 births. Gant, however, thinks they are not as uncommon as the profession believes.

It is interesting to note from the literature the variety of tumors found in this perisacral region of the body. All of them are considered to be congenital in origin and arise from defects of growth in the pelvic region of the embryo. It has been recognized by histologists and pathologists that the growth of tissue is more apt to stray from the normal course there than in any other portion of the body, giving rise to developmental "accidents", such as sinuses, fistulas and tumors.

*From the Department of Surgery, Washington University School of Medicine, St. Louis, Mo.

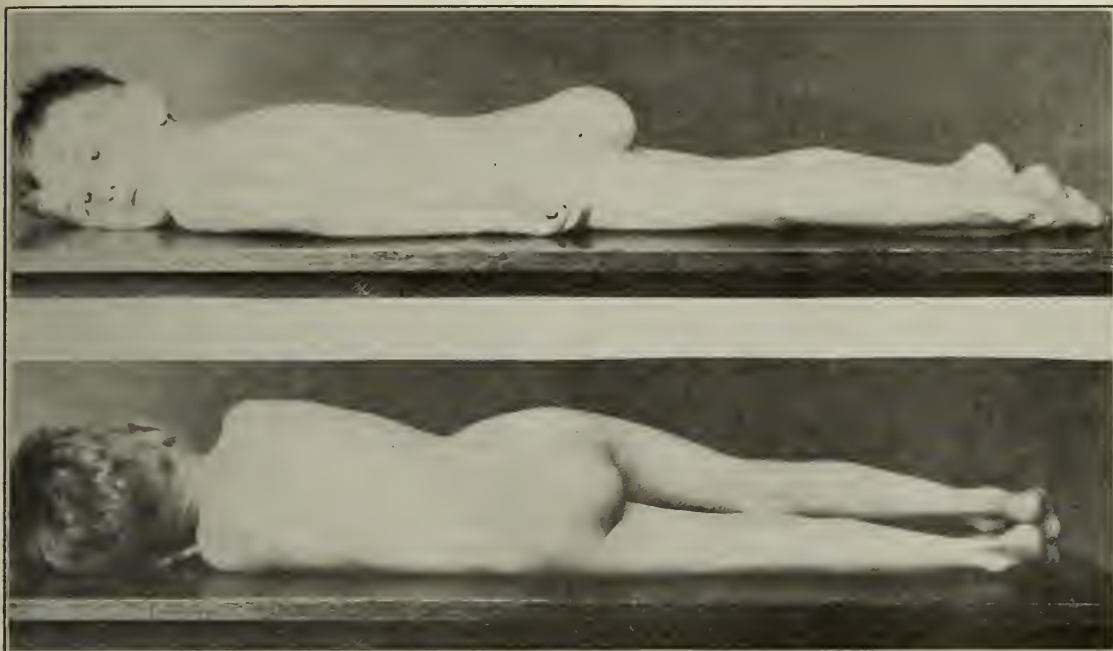


FIGURE 1

Lateral and posterior view of tumor. In the posterior view an irregularity of the medial border of the tumor can just barely be seen. At this point there was dimpling of the skin.

Coplin states that "perfect evolution of tissues in the sacrococcygeal area is beset with many narrow escapes." Mallory has offered an explanation of this imperfection of development by calling attention to the slower rate of growth in the fetal pelvis as compared with that of the upper portion of the body. He believes, consequently, that closure of embryologic tracts in the lower body, such as the neurenteric and medullary canals is less favored than those of the upper body, such as the branchial clefts.

The presence of sinuses in the sacrococcygeal region of the fetus has been shown by Hermann and Tourneux, using the serial section method, to be a rather frequent finding, and Mallory's work in 1892 showed how often there occurs an extension of the medullary canal, lined with epithelium, lying posterior to the sacrum, sometimes connected with the skin and sometimes situated just under the skin. Closure of this canal is usually accomplished not later than the ninth fetal week and is aided by the greater rapidity of growth of the vertebrae over the spinal cord which stretches the filum terminale, thus collapsing the walls. Failure of this canal to close gives rise to the rather com-

monly found posterior sacrococcygeal cyst or sinus, frequently termed pilonidal cyst. Some believe, however, that this cyst is an external formation or an ingrowth of epidermis.

The large group of tumors which arise anterior to the sacrum (perisacral) have a similar embryologic origin; namely, from the neurenteric canal. This canal also closes very early in fetal life and consists of a tract which normally connects the fetal lower intestine with tissues adjacent to the notochord; this is well diagrammed by Keibel and Mall and by Kollmann. Tumors arising here usually are attached to the sacrum by a stalk or pedicle and may be lined with intestinal mucosa (the post-anal gut tumor), or filled with neural tissue (the chordoma and the ependymal glioma), or they may contain a mixture of both tissues. Some of them have a further complication and contain tissues such as pancreas; lung and retina (Bergmann); a scapula (Montgomery); trachea (Keen); and hair, teeth and sebaceous material as in teratomas elsewhere in the body. The origin of this latter type of tumor as coming from one or all three of the germinal layers of the fetus is obviously an insufficient

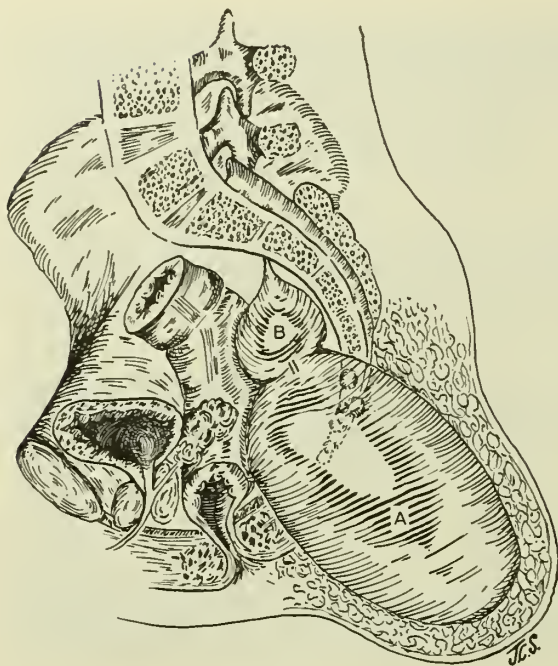


FIGURE 2

Mid-sagittal view of pelvis illustrating bilobulation of the tumor, A and B, with pedicle attached to sacrum. The short dotted lines just below B represent the small opening between the two cysts. Note the smaller cysts attached to and lying within the coccyx. Also note the posterior dislocation of the seminal vesicles.

explanation; consequently many observers believe that the origin may be attributed to a process of incomplete dichotomy or a condition called "fetus in fetu".

In 1885 Middledorff maintained that all presacral tumors grew from the post-anal gut and this theory was believed for many years to the extent that all of them were called "Middledorff tumors". But ten years later Ribbert gave experimental proof that at least some of them had quite a different origin, namely, from notochord. He found that by puncturing the anterior intervertebral disc in the rabbit he could produce a herniation of the nucleus pulposus, with a later proliferation of cells exactly like those of the notochord; thus he distinguished the chordomata from the postanal gut tumors. Growths similar to those produced by Ribbert arise in the region of the basisphenoid and project into the pharynx, less often into the sella turcica (Galletley).

All of these tumors are sometimes associated with congenital defects elsewhere in the body. Hausmann reported an infant with harelip and cleft palate in which autopsy re-

vealed elongated pupils, two main bronchi to the lobes of the right lung, both great arteries arising from the right side of the heart, the cecum being just beneath the liver, ununited tubules of the kidneys (polycystic), and a presacral tumor containing glia cells and fibrils with a pedicle attached to the anterior dura of the cord. Other associated congenital anomalies are spina bifida, mental deficiency and club feet. Of all the tumors in this region those lying anterior to the sacrum are the least common, and of these the cystic growths outnumber the solid ones.

The manner in which they develop, enlarge and distort the pelvic organs is important, both from the standpoint of diagnosis and of operative treatment. Usually by the time they have given rise to discomfort to the patient they are visible on the surface of the body and have presented themselves as a bulging mass in the perineum or upon the buttock (Fig. 1). Internally they lie between the rectum and sacrum and enlargement is always toward the pubes, and downward, pushing the anus and genitalia downward and forward. The uterus is pushed upward without a spreading of the broad ligament. Externally they never extend above the superior margin of the glutei muscles (Keen). As has been previously mentioned, most of them are attached by a pedicle to the sacrum, and frequently there is a pressure erosion of that bone. As in the present case, the posterior rectal wall may be flattened and thinned and tightly adherent to the wall of the tumor; and a lateral and posterior displacement of the seminal vesicles may occur. (Fig. 2). Their size may vary greatly and they may be cystic, solid, elongated, spheroidal, lobulated and occasionally sensitive to touch, (Gant).

Symptoms are scant other than a clumsiness in sitting or in dressing. Adults have carried these tumors for years without knowledge of their presence. A sudden increase in size may be the first alarming sign. Sometimes a symptomless mass is prominent from the time of birth; on the other hand the mass may be accidentally discovered in the course of a routine rectal or vaginal examination. Constipation may be the only

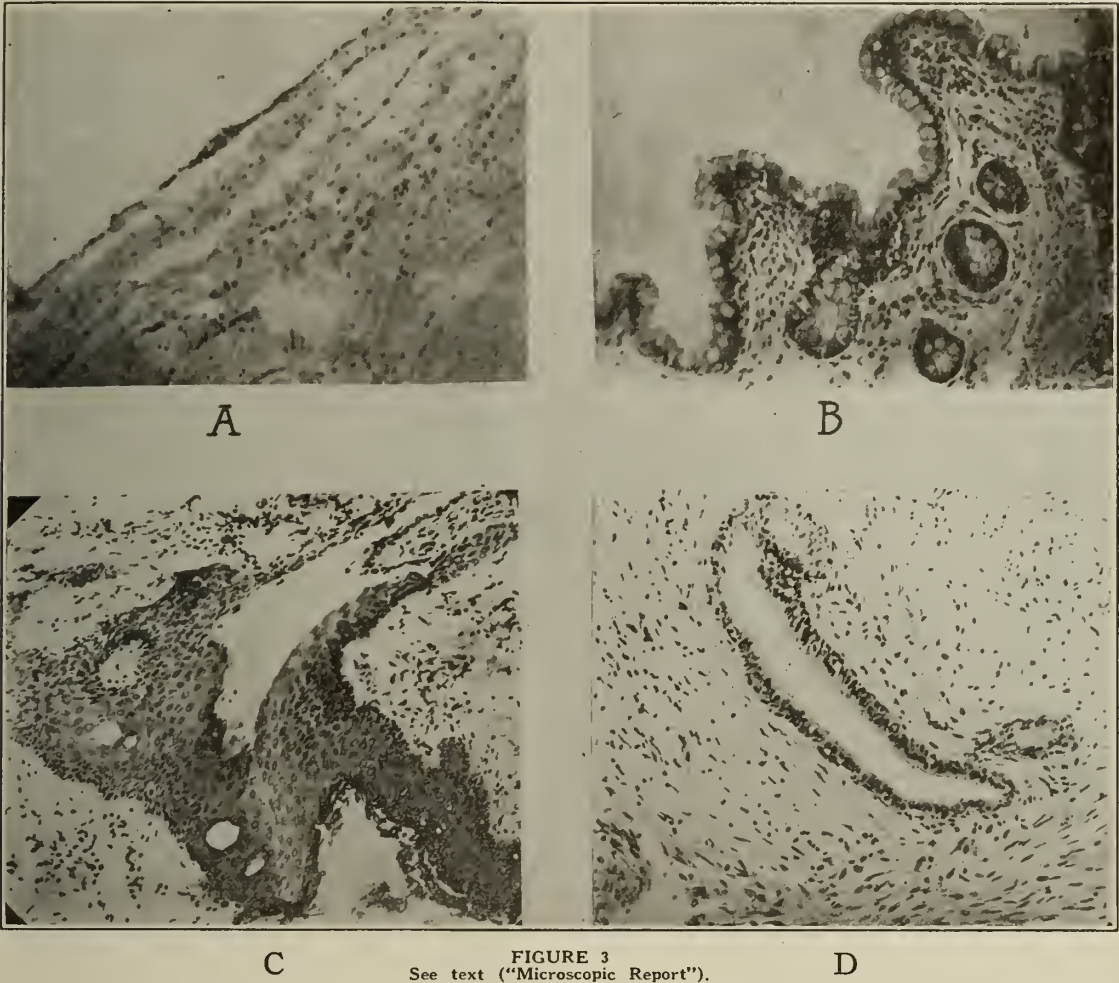


FIGURE 3
See text ("Microscopic Report").

symptom and is caused by direct pressure on the rectum. Rarely does the tumor sufficiently encroach upon the rectum to produce the symptoms of intestinal obstruction.

In Sawday's case a four year old boy, with complete intestinal obstruction, was found to have a mass palpable per rectum and lying above the pubes. In a few cases the presence of one of these tumors has been recognized only during labor, the mass making its appearance as the fetal head descended; in a case of Galletly's, a presacral cyst necessitated a Caesarean section.

Differentiation must be made of such conditions as ovarian cyst, lipoma, meningo—or meningomyelocele, ischiorectal abscess, Bartholin's gland cyst or abscess, etc. The ovarian cyst is extremely rare during the first year of life and is rare up to puberty. On physical examination it is found to have extended into the broad ligament. The pre-

sacral tumor, on the other hand, occurs at any age, does not extend into the broad ligament, and is usually more smooth and sharply outlined. For differentiation of the meningo, or meningomyelocele, it is important that a thorough neurologic examination be made. An x-ray plate may be of value in determining the extent of the intrapelvic portion of the presacral tumor, especially if there are calcium deposits in its wall; it may reveal the presence of a teratomatous foreign body, and it will show whether or not there is a co-existing spina bifida.

It is uniformly agreed upon that treatment consists of complete surgical removal whenever feasible. No special procedure has been recommended because each case must be handled as seems best at the time of operation. Pearse, however, strongly advises exploration through a posterior or subsacral in-

cision with removal of the coccyx and a part of the sacrum when necessary. He points out that the advantages of this posterior route over the anterior abdominal or transperitoneal one are better accessibility, and better control of hemorrhage and infection. When complete excision is not possible, incision of the tumor with evacuation of contents and scraping of the inner wall, followed by some form of radiation therapy, seems to be the procedure of choice. Removal of these tumors, whether large or small, symptomless or not, should be urged, since all of them are potentially malignant. Malignant degeneration is comparatively rare but such forms of it as adenobasal cell, and colloid carcinoma, together with sarcoma and myosarcoma have been recorded by Hundling of the Mayo Clinic, and by Stewart. Operation has been found to be quite feasible immediately after birth. Cutler successfully operated within the first fifteen hours, and Hausman accomplished complete removal of a rather large tumor within the first twenty-four hours.

In conclusion, it may be repeated that rarely are any two of these tumors alike in regard to the symptoms produced, or their gross or microscopic appearance. As a result of such dissimilarity no adequate classification of them is to be had at the present time (Ewing), hence further report of cases illustrating the gross and microscopic findings would seem to be justified.

Report of Case†

A boy of five years of age was brought to us on account of the gradual enlargement of a painless mass in the region of the left buttock. This mass had caused no discomfort at any time except an awkwardness in sitting, and the only probable associated symptom had been a diarrhea of three months' duration at the age of two.

At birth there had been an instrumental delivery with a head presentation. He sat at six months, walked at eleven, and talked at one year. At the age of two he had a purulent discharge from each ear, and indefinitely described convulsions lasting three to four hours and occurring once a month for four months. At the age of four he had been struck on the right chest and occiput by a falling railroad tie and had been unconscious for three days, followed, apparently, by complete recovery.

†Surgical Service of Dr. Vilray P. Blair.

Physical Examination.—The child was well developed, fairly well nourished, and was mentally normal. A complete examination, including neurologic tests, revealed no abnormality other than the gluteo-perineal mass as illustrated in Fig. 1. This mass was soft, fluctuant, and movable except for deep fixation beneath the left gluteal muscles. There was no tenderness and the only change in the overlying skin was a dimpling over the medial border of the tumor. The anus and anal sphincters were normal but, per rectum, the mass could be palpated in the lower pelvis between the rectum and sacrum. The blood, urine, and a blood Wassermann were negative.

Operation.—On December 4, 1930, an elliptical, ten-inch incision was made directly over the tumor. The mass was freed down to its base with blunt and sharp dissection. It was then incised and about 500 cc. of greasy, cloudy fluid containing sebaceous-like material was removed, but as soon as the cyst cavity was emptied it would immediately begin to refill. At the inner base of the cyst were two small orifices, and to identify the bladder the patient was catheterized. This proved we were not dealing with bladder but with a bilobulated cyst (Fig. 2). Complete extirpation of the tumor was accomplished, but only with considerable difficulty in the region where the rectum was firmly attached to the tumor wall. The coccyx and a small amount of the sacrum had to be removed and were found to contain multiple small cysts filled with gelatinous material. The wound was partly closed with iodoform gauze packing left deep in the defect. Healing of the wound took place by collapse and granulation of this defect and the boy was up and about on the twenty-sixth post-operative day when he was discharged from the hospital.

Follow-Up.—Three weeks later the child looked well and had gained weight. He was having normal bowel movements and no fecal fistula had developed. He had one epileptic-like attack, similar to those which occurred three years before operation, but without definite convulsions. Rectal examination revealed scar tissue hardness behind the posterior rectal wall; otherwise negative. The wound was practically healed except for a superficial sinus which was gradually closing. Other follow-ups, nine months and again one year after operation, were made. The wound had healed and the contour of the buttock was about normal. There was no discomfort, bowel movements were normal, the gait was normal, and there was no sign of recurrence locally.

Microscopic Report.—(By Dr. Nathan A. Womack). The sections shown in Figs. 3A and 3C are from the large cyst first encountered that contained the cloudy fluid with some sebaceous material in it. The lining in A is made of cuboidal cells in single layers in some areas and stratified in others; in C this lining has become definitely stratified squamous epithelium. The wall of the cyst contains connective tissue and smooth muscle. No nerve elements are seen.

Fig. 3B is from one of the smaller cysts and shows columnar epithelium whose cells extend down into the loose connective tissue to form glands or more cysts. The cells are filled with mucus and are thought to be large intestine epithelium from remnants of the post-anal gut. (This section is similar to a section of a tumor removed by Garven which was thought to contain gastric mucosa.—Authors).

Fig. 3D shows a small cyst from the wall of the large cyst, lined with cuboidal cells.

Diagnosis.—Sacrococcygeal tumor of post-anal gut origin.

Summary

Sacrococcygeal tumors probably occur more commonly than is generally believed. They are embryonic growth defects which may be easily overlooked at birth on account of the fact that they have a proclivity to lie dormant within the pelvis without giving rise to any symptoms or signs until later in life. They are not infrequently associated with other congenital malformations. Mainly they are to be differentiated from spinal cord and meningeal tumors; consequently a neurologic examination is indicated. Early recognition and early operation is urged since these tumors are definitely subject to malignant degeneration.

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RECTAL DISEASE*

Some Remote Manifestations

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The rectum and anus as sources of disease have recently been brought into the forefront of our clinical concern from the shadowy recesses to which they have been relegated for generations past by false modesty, natural timidity, and an apparently inherent dislike on the part of most patients to discuss this area even with a physician. It is difficult to understand why an abscess of the rectum or anus should bring more opprobrium upon its owner than a similar abscess elsewhere but such has seemed the case for many years past and it is only within the last few years that proctology has been considered a science concerned with actual clinical entities and worthy of the attention of an able practitioner.

Diseases of the rectum fall into two main groups when considered in connection with the general body economy. They may be general diseases with local manifestations in the rectum or anus such as tuberculosis, syphilis, amoebic colitis, and chronic ulcerative colitis of the Bagen type; or they may be local diseases of the rectum with remote manifestations such as carcinoma of the rectum with general and widespread metastases. Some of the remote manifestations of local rectal diseases are most bizarre and any explanation of their occurrence must be based on an understanding of the anatomy and physiology of the lower gastro-intestinal tract and the interrelation of these structures with other tissues by means of anatomical contiguity, juxtaposition, interrelated physiological dependence, or through the arterial, venous, lymphatic, or nervous systems. A brief review of the gross and microscopic anatomy of the rectum and anus will make such an understanding easier of achievement and aid materially in clarifying the actual means by which these manifestations develop.

The rectum is the tubular extension of the pelvic colon and extends from the level of

The American Public Health Association will hold its Sixty-First Annual Meeting in Washington, D. C., October 24-27. The Willard Hotel will be headquarters. The Association occupies a unique place in the public health world. It is their organization, their clearing house, their source of information, their spokesman and advocate of sound working principles and standards for public health service.

*Read before the Fulton County Medical Society, Atlanta, Ga., March 4, 1931.

the third sacral vertebra to the point where it pierces the levator ani muscles. In all its average length is from five to six inches and its diameter varies from one to three inches. It is markedly curved in its course, the curves becoming more manifest when the rectum is filled. Its function is to act as a reservoir for feces. Its curvature is caused and maintained by a special arrangement of its longitudinal muscle fibers which are grouped into two wide bands, one anterior and one posterior. These bands are somewhat shorter than the other longitudinal fibers more laterally placed and therefore serve to maintain the curvature and to aid the levatores ani in supporting the weight of the filled rectum. The superior two-thirds of the rectum are either partially or completely covered by peritoneum. The rectum is entirely devoid of a mesentery and the mesentery of the pelvic colon begins to divide at the beginning of the rectum so that the posterior part of the rectum has no peritoneal covering at any point. This separation of the peritoneal leaves continues until the sides and finally the anterior surface of the rectum lose their peritoneal relations entirely. The peritoneum is reflected forward in the male to the posterior surface of the bladder forming the floor of the recto-vesical pouch and to the upper posterior vaginal wall in the female forming the floor of the pouch of Douglass. This lack of complete peritoneal covering of the rectum allows great mobility and distensibility without the pain of peritoneal traction. In close posterior relation to the distended rectum lie the coccyx, sacrum, two main branches of the superior hemorrhoidal artery, the sacral and pyriform plexuses. Anteriorly in the male are found the seminal vesicles, vasa deferentia, posterior surface of the prostate gland, and the ureters.

The anus is a slit-like canal, one to one and a half inches in length, inclining forward from above downward at an angle of about forty-five degrees, and extending from the end of the rectum to the external anal orifice. Its walls are normally in complete apposition except during the act of defecation. It is surrounded by the levator ani muscles and the internal and external sphincter muscles.

On either side is a mass of fat and loose connective tissue known as the ischio-rectal fossa. Posteriorly there is a mass of connective tissue and muscle fibers called the ano-coccygeal body and anteriorly lie the bulbous portion of the urethra and the base of the urogenital triangle in the male and the perineal body in the female. Just beneath the circular muscle coat of the anus lies a loose layer of connective tissue which under certain abnormal conditions will allow the anal mucous membrane to prolapse through the external anal orifice. It is in this loose layer of connective tissue between the mucous membrane and muscularis that the bulk of the plexus of hemorrhoidal veins is found. The anal mucous membrane is very highly organized and unique in its gross and microscopic structure. It is elevated into small longitudinal folds, five to ten in number, called the columns of Morgagni. Between the base of each of these columns and its neighbor is found a tiny crescentic fold of mucous membrane forming a small pouch with its open end directed upward. This line of crypts known as the dentate margin or pectinate line marks the line of junction between the mucous membrane lining the upper portion of the anal canal and the skin lining the lower portion.

The muscles of the anus are the levatores ani which suspend the weight of the filled rectum and have a sphincteric action in closing the division between the rectum above and the anus below; the internal sphincter which extends the entire length of the anal canal and is formed by a rather abrupt hypertrophy of the circular muscle coat of the anus and has a detrusor action in aiding in the complete emptying of the anus; and the external sphincter which is a separate muscle of external attachment and is the essential muscle concerned in anal continence. The external sphincter muscle is composed of striped muscle fibers and is under the control of the will but is in a state of contraction normally.

The rectum and anus are supplied with arterial blood from three sources. The superior hemorrhoidal artery arises as the terminal branch of the inferior mesenteric artery, courses downward posterior to the

rectum, divides into a right and a left branch, and these branches assume a position lateral to the rectum and pierce its muscle coat in about the middle third of the organ. Its branches terminate at the pectinate line and usually one small branch is found in each of the columns of Morgagni. There are two middle hemorrhoidal arteries and these usually arise from the hypogastric artery but sometimes from the internal pudendal. The branches of these vessels anastomose freely with the branches of the superior hemorrhoidal artery in the hemorrhoidal plexus which lies in the submucous layer at the pectinate line. The inferior hemorrhoidal arteries which usually number two or three on each side arise from the internal pudendal artery and supply the levatores ani, internal and external sphincter muscles, and the posterior portion of the lower anal canal. There is a somewhat inconstant branch of the middle sacral artery which forms a circular vessel in the skin around the anal orifice and bleeds from both ends when divided. The veins of the rectum and anus are of more clinical significance than the arteries and are found in two chief plexuses of large vessels which are almost entirely devoid of valves. The internal hemorrhoidal plexus is situated in the submucous coat and takes origin from the radial anal veins about the external anal orifice. At about the middle of the rectum these veins pierce the muscular wall and unite on the surface of the rectum to form the superior hemorrhoidal vein. This vein unites with the inferior colic to form the inferior mesenteric vein which empties into the splenic vein. From the lowermost part of the submucous hemorrhoidal plexus formed by the tributaries of the superior hemorrhoidal vein numerous small branches pierce the external sphincter and form a rich network of vessels on the surface of the sphincter and these in turn unite to form the inferior hemorrhoidal vein. This vein empties into the internal pudendal vein. The middle hemorrhoidal vein empties into the inferior vena cava by union with the common iliac. All of these veins anastomose freely with each other in the submucous layer and on the surface of the rectum and anus and thus form

a very rich connection between the systemic and portal venous circulations.

The lymphatic drainage of the rectum and anus with the exception of the cutaneous lower portion of the anal canal, enters the lumbar chain of lymphatics by way of the glands in the hollow of the sacrum, the hypogastric and mesocolic chains. The lymphatics from the dentate margin to the external anal orifice pass directly into the inguinal and subinguinal nodes.

The rectum and anus are supplied by both cerebro-spinal and sympathetic nerve fibers. The sympathetic fibers come in the blood vessel sheaths from the inferior mesenteric plexus and the upper and lower divisions of the hypogastric plexus. The cerebro-spinal fibers come from the second, third and fourth sacral nerves. The cerebro-spinal fibers carry motor innervation to the longitudinal muscles and inhibitory innervation to the circular muscles. The sympathetic fibers carry inhibitory innervation to the longitudinal muscles and motor innervation to the circular muscles. The reflex center controlling defecation is located in the lumbar cord and has been proven capable of controlling this function normally even when completely separated from the brain.

The deleterious effect on the function of organs, adjacent to and remote from these highly organized and complex structures, are numerous and varied and, unless one is constantly alert, the exciting or aggravating factor in the rectum may be overlooked because of the paucity of localizing signs or the natural tendency of so many otherwise intelligent patients to conceal the fact of rectal disease from the examiner.

Chronic nervous exhaustion, functional neurasthenia, or the so-called nervous breakdown may be, and often is, due to certain types of rectal abnormality. Pruritus ani, fissure in ano, fistula, prolapsus, and some of the milder congenital malformations are most prone to cause an interruption to the normally smooth flow of nerve impulses by their constant bombardment of the central nervous system with numerous irritating impulses arising in a painful, itching, or embarrassing affection in the anus or rectum. The apprehension of the severe pain of the next

bowel movement in a patient with an anal fissure is sufficient to produce the most alarming symptoms in a patient who perhaps has a nervous system which is somewhat inherently liable to over stimulation from mild recurring impulses. The constantly present, extremely disagreeable pruritus so often seen in a patient with an irritating rectal discharge or some parasitic infestation may make life almost intolerable for these sufferers until they obtain some relief. The severity of these nervous manifestations may be illustrated by a patient seen with another physician about one year ago. The physician sent this patient to me with a diagnosis of constitutional psychopathic inferiority and an intractable pruritus ani. The patient had made two unsuccessful attempts at suicide and was threatening to repeat the attempt unless his pruritus could be relieved. Examination revealed a weeping eczema of the perianal skin with several external skin tags, the under surface of which seemed to be playing a large part in the production of the irritating discharge. In the absence of other demonstrable etiology the patient was sent to the hospital and after trans-sacral anesthesia a perianal injection with fifty per cent alcohol was made and the anal skin tags removed. Recovery was rapid and complete and the patient was advised that his relief was probably temporary and that the injection should be repeated in from five to six months. During the period of relief the patient secured employment and I was told by his physician that his mental condition was much improved. About five months after his first injection his pruritus began to reoccur gradually and some two months later the patient almost succeeded in committing suicide by taking cyanide of mercury tablets. He recovered from this with considerable difficulty and then his perianal tissues were again injected with alcohol and when last heard from he was in another city and had made a fairly good readjustment. This is an extreme case and, although the patient was suffering from a definite mental abnormality, it is reasonable to assume that the repeated irritation on his central nervous system was sufficient to aggravate his already abnormal mental state.

Backache and headache may be due to any

one of a great number of causes and many of these causes are to be found in the rectum and anus. Infection around the anus, prolapse of internal hemorrhoids, fissures, proctitis, polypi, and benign or malignant strictures of the rectal lumen have all been reported as responsible for headache, backache, or both. Inflammation or hypertrophy of the valves of Houston creating an obstruction to the passage of feces through the rectum may produce sufficient distension of the organ to impinge on the sacral plexus and cause low lumbar or sacral backache. By the same mechanism a heavy distended rectum may be responsible for a severe intractable sciatic neuralgia. Also acute inflammatory conditions in the rectum may spread by direct contiguity of tissue to the cellular tissues surrounding the primary branches of the sacral plexus and produce pain or inflammation along the course of the involved nerve.

Constipation is rarely due to any intrinsic rectal disease except indirectly in such cases as fissures where the patient intentionally postpones his bowel movement as long as possible to avoid the pain associated with each defecation. This habit, long continued, results in a dilated rectum, slowing of the fecal current, and finally actual constipation. Obstipation, on the contrary, is probably most often due to some rectal abnormality. This may be an hypertrophy of the valves of Houston, large benign tumors such as polypi, adenomata, etc., organic rectal stricture, fecal impaction, or malignant neoplastic disease.

Severe secondary anemia is probably one of the most important and most easily remedied remote complications of rectal disease. Rectal bleeding, even in minute quantities, if prolonged over a considerable period of time and repeated at frequent intervals may produce a very profound secondary anemia and yet be easily overlooked in a general physical examination. An external and digital examination in the absence of a definite history of rectal bleeding will be insufficient and unreliable in determining the presence or absence of a lesion in the rectum capable of producing such an anemia. A sigmoidoscopic examination which can be done without anes-

thesia and with practically no discomfort to the patient, is our only means of discovering rectal ulcers, bleeding polypi, or other lesions causing a loss of blood. This examination should be a part of the routine physical examination when searching for the cause of a secondary anemia when the cause is not otherwise manifest. A patient seen several months ago serves to illustrate the effect of prolonged losses of small quantities of blood. The patient was asthenic, cachectic, and anemic. Red blood cells were 3,400,000 and hemoglobin was fifty per cent. She gave a history of having passed a minute trace of blood with every bowel movement for fifteen years. Sigmoidoscopic examination showed the thirty-five centimeters of bowel above the pectinate line to be normal except for a blanched mucous membrane. At the pectinate line there were several medium sized, non-prolapsing, moderately ulcerated, internal hemorrhoids which bled rather easily. These were removed under trans-sacral anesthesia and there was no more bleeding. This patient was given a hematogenic tonic and diet and she now shows red blood cells 4,500,000 and hemoglobin of 86 per cent. She feels better and her weakness and lassitude have disappeared. Carcinoma of the rectum is the most serious local disease that manifests itself by a secondary anemia. Chronic ulcerative colitis of the Bargen type and amoebic colitis, while most often causing definite localizing symptoms referable to the lower bowel, may produce a severe secondary anemia which persists between the severe fulminating exacerbations of the disease and, in the absence of an accurate, adequate history, sigmoidoscopic examination of the ulcerations and scars in the lower sigmoid offers the only opportunity for diagnosis.

Hematuria, due to development of the bulbous urethra, prostate, seminal vesicles, bladder base, or ureters in an infectious process spreading from the rectum or anus and rupture of a rectal malignancy into the bladder have all been reported. In such cases a simple digital examination of the rectum will generally give sufficient evidence of disease to stimulate one to further investigation with the sigmoidoscope. The same conditions

which produce hematuria may produce abscesses in any of the structures around the bladder base and result in penile or scrotal pain of varying intensity, partial obstruction, cystitis, etc.

Remote abscesses originating from rectal or perianal infection are relatively common. These may occur by direct tissue contacts, lymphatic circulation, or by venous metastasis. There has been one case reported where an ischio-rectal abscess penetrated the deep pelvic fascia and gave rise to an iliac abscess before any localizing signs developed at the anus. Ischio-rectal abscesses may also penetrate the greater sciatic foramen and give rise to a pointing abscess on the lateral side of the buttock quite a considerable distance from the anus. General sepsis with multiple, remote, metastatic abscesses has been seen many times and often with no localizing symptoms referable to the causative focus in the anus by the patient. Here the patient is often quite ill and a good history is difficult to obtain and unless a thorough examination is made the infective focus will be overlooked.

Lymphatic enlargement, particularly when seen in the inguinal and sub-inguinal nodes should always suggest an investigation of the anal canal. The enlargement may be due to an infection or malignancy of the anal canal or perianal tissues with direct spread through the penetrating lymphatic channels between the portion of the anal canal below the pectinate line and the inguinal and sub-inguinal nodes. Three years ago a young man of twenty-six had a mild, unilateral, inguinal adenitis and after a thorough investigation of his genito-urinary apparatus, including cystoscopy, no cause could be found. He was then referred to a large clinic where the same genito-urinary investigations were carried out with the same negative diagnostic results. He then had a sigmoidoscopic examination and a small, grade three, carcinoma was found on the posterior wall of his anal canal at the pectinate line where discovery was unlikely on digital examination of the prostate gland and seminal vesicles. There had been no localizing symptoms referable to the rectum and biopsy of the tumor and of the glands revealed that the glands were involved in

metastases from the tumor in the anus. The growth was obviously inoperable and palliation with radium was all that could be offered to the patient. Infectious pruritus ani, fissures, and anal ulcerations will also produce an obscure inguinal adenitis.

Focal infection as a causative factor in the production of various visceral lesions such as peptic ulcer, polyarthritis, skin diseases, and neuritis is enjoying a widespread popularity at present. The teeth, tonsils, appendix, gall bladder, sinuses, prostate, and cervix have all been held responsible for furnishing this field from which pathogenic bacteria or their products can be absorbed. Anal cryptitis as a clinical disease entity is easily recognized with the direct illuminated vision furnished by the proctoscope and pathologically furnishes a pocket of tissue filled with organisms of known pathogenicity and drained by an abundant venous and lymphatic system. It is reasonable to assume that many patients suffering with definite focal disease are affected with anal cryptitis and that this cryptitis is the source of their infection. Hirschman reports a number of cases that have been traced directly to this cause.

Many cases of liver abscess have been seen by clinicians where there could be elicited no history of previous diarrhea or other evidences of Amoebiasis. In a great majority of these patients a high sigmoidoscopy will reveal the tiny punched-out ulcers which are characteristic of amoebic infection and if the disease has been eradicated as a bowel entity the characteristic scarring will be evident. Roentgenological examination is unsatisfactory for the diagnosis of this condition particularly in the absence of an acute period of the disease where the spastic, hyperperistaltic colon will suggest the diagnosis. I have had an opportunity of seeing several of these cases where the history, Roentgenological examination, and stool examination were all negative and yet the amoeba histolytica was discovered by a microscopic examination of a warm saline suspension of the material freshly scrapped from the base of an apparently healed ulcer.

Weight loss like anemia is not an infrequent manifestation of rectal disease. Psychic disturbances from pain, itching, or difficult

defecation will often result in a marked cachexia, anorexia, anemia, liver enlargement. The rectum and anus are not examined. Bleeding polypi, diverticulosis, diverticulitis, malignancy and many other types of rectal disorders will cause weight loss either by disturbed function of the rectum itself or by reflex alteration of the general body metabolism. Carcinoma of the rectum may give cachexia, anorexia, anemia, liver enlargement, or the presence of an abnormal mass as its first symptom. I have seen two cases of carcinoma of the rectum that presented no localizing signs until distant metastasis, one in the liver and one in the inguinal nodes, precluded the possibility of surgical cure.

There are undoubtedly many other types of rectal disease that present many different types of remote manifestations but my purpose in this paper has been to present only those cases in my own experience or whose case records were available to me.

In a careful review of one hundred and eighteen consecutive cases seen on the proctological service at Grady Hospital, White Division, between 1925 and 1929, I have found the following where the remote manifestations were of sufficient interest, and the method of their production clear enough to warrant their inclusion in this paper.

Case No. 10, Hospital Number 54196. Mr. C. G. Age 54. This patient gave no history of any rectal abnormality for five years past. Before that time he had had a fistulectomy. On admission he had a draining sinus over his left hip which, on further examination, proved to be the external opening of an anal fistula with a high internal opening.

Case No. 13. Hospital Number 57404. Mrs. D. B. G. This patient gave a history of recurrent attacks of abdominal pain over a period of thirty-one years. The pain would begin in the lower left abdominal quadrant and soon become generalized and quite severe. She suffered with periods of severe constipation lasting several days and followed by several days of diarrhea. She had received treatment from several outside physicians but with only partial relief. Examination revealed a tight stricture of the rectum two and a half inches from the external anal

orifice. Dilatation of this stricture gave partial relief of all symptoms.

Case No. 16. Hospital Number 54154. Mrs. L. V. B. Age 68. This patient gave a history of complete rectal incontinence since the birth of her child forty-six years before. She had never confided this trouble to the members of her family or to her physician. She had been ill for six months before admission with nausea, vomiting, generalized abdominal pain, and diarrhea for five months which had been followed by one month of obstinate constipation. She was very nervous and generally below par physically. Examination revealed the abdomen moderately distended and slightly tender throughout. There was a mass approximately ten by ten centimeters at the recto-sigmoidal junction. Sigmoidoscopy was not recorded. Colostomy was performed after an inferential diagnosis of fecal impaction above a malignant rectal stricture. The stricture would not permit the passage of a colon tube. The patient died several days after colostomy was done and post mortem examination showed an adenocarcinoma of the recto-sigmoidal junction. This patient represents one of a relatively large number of unavoidable mortalities when one is dealing with a disease as serious as cancer but well illustrates the inherent secretiveness of some of these patients who will not confess to their family or physician that they are suffering from a serious rectal disease.

Case No. 25. Hospital Number 53831. Mr. G. M. H. Age 34. This patient gave a history of a mild swelling and moderate pain around his anus of one and a half weeks duration. Shortly before admission he began to have extremely high fever and some painful swelling in his perineum. On admission he had a high fever, leucocytosis, swelling in his anus, perineum, scrotum, and perianal tissues. He had a definite pyuria and was extremely ill. Just above the pubes on the anterior abdominal wall there was an area of swelling with beginning gangrene of the superficial tissues. There was no palpable connection between the swelling in the perineum or perianal tissues and the mass in the abdominal wall. This would seem to indicate that the infectious process in the anus

spread to the abdominal wall through the lymphatic connections or directly through the deeper tissues. There is also the possibility of a blood borne metastasis. Cultures taken, from the perianal abscess and the abscess in the abdominal wall showed streptococci of the same cultural and structural characteristics.

Case No. 54. Hospital Number 31129. Mr. B. N. H. Age 44. This patient was admitted with a chief complaint of pain in his lower abdomen for the past three years. He had had a hemorrhoidectomy and an exploration of his lower left abdomen done a number of years previously but the patient did not know what the abdominal exploration had been done for. There had been no symptoms referable to his rectum since his hemorrhoidectomy. Because of a nocturia of one time per night and the location of his pain over his bladder a cystoscopy was done. The urologist thought he had a tabetic bladder but thought that there was some evidence of external pressure on the bladder and advised that a sigmoidoscopy be done. This examination revealed a new growth at the recto-sigmoid beyond the reach of the examining finger. Previous tentative diagnoses had been tuberculosis, chronic nephritis, cystitis, chronic prostatitis, and seminal vesiculitis. Repeated urine examinations were negative except for a faint trace of albumen in one specimen and his blood Wassermann was repeatedly negative. This case serves to remind us that digital examination is insufficient for diagnosis of many serious rectal lesions and that a silent lesion of the rectum may produce a tremendous alteration in the general body economy before manifesting itself locally.

Case No. 66. Hospital Number 50224. Mrs. J. S. M. Age 38. This patient was admitted with a chief complaint of vaginal bleeding. Pelvic examination was entirely negative except for a slight flow of blood from an apparently normal external cervical os. Proctoscopic examination revealed an ulcerated rectum, a rectal polyp, a fistula in ano, and internal hemorrhoids. Correction of the rectal pathology was followed by a cessation of the vaginal bleeding.

Case No. 74. Hospital Number 37006. Mr. W. B. Age 25. This patient was ad-

mitted with a provisional diagnosis of cellulitis of the left thigh with a question of an osteomyelitis. He had a small uninfected blister on his left heel of several days' duration and a large abscess of the lateral surface of his left mid-thigh. Roentgenological examination of his left leg was reported negative. Further examination revealed an infected Pilonidal cyst which was excised and the infection in his left thigh rapidly cleared up. Cultures from the pilonidial cyst and the abscess in his thigh showed the same organism.

Case No. 75. Hospital Number 37366. Mrs. B. E. W. Age 41. The record of this patient is quite similar to that of the preceding patient and differs chiefly in the number and remoteness of the metastatic abscesses. The patient gave a history of a rectal abscess of about three weeks' duration. On admission her temperature was 100.3 and she had a rather small perirectal abscess, an abscess of the left forearm, hand, and thigh, and of the right upper arm. Blood culture was negative but culture of all the abscesses showed the same strain of colon bacilli and streptococci. The abscesses were drained and the patient showed some improvement but died very shortly of inanition.

The conclusions drawn in the above reported cases, while necessarily somewhat hypothetical, all have sufficient basis in fact to permit their inclusion in this paper, the purpose of which is to stimulate an interest in the rectum as a potent source of disease with remote and general manifestations. The increasing use of the sigmoidoscope in general physical examinations, especially in those cases where the exact etiology is obscure, will do much to prevent some of the tragedies of late diagnosis I have tried to present.

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The Eighty-Fourth Annual Session of the Association will be held at Macon May 9-12, 1933.

OPERATIVE TREATMENT FOR PREVENTION OF DIABETIC GANGRENE*

Case Report

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Savannah

I do not claim any originality in the operative measure presented in this paper, however, I wish to stress the application of this well-known procedure as a preventive measure in diabetic gangrene.

In diabetes arteriosclerosis is a common accompaniment, and the resulting gangrene is dependent on the atheromatous narrowing of the vessels, especially those of the leg. This narrowing of the arteries decreases the blood supply to the parts which, of course, results in a lessened amount of elements essential for the exchange of gases in the tissues, nutrition, and the repair of waste. Therefore, if the return flow of blood could be impeded, thus producing a permanent stasis of the affected parts, there would naturally be a hyperemia with consequently increased blood supply, causing an improved physiological condition and retarded pathological changes.

In the following report an attempt is made to prove this theory:

A well-nourished white male merchant, 66 years of age, was first seen in April, 1929, having been sent in by his family physician with a diagnosis of diabetes mellitus. The chief complaint at this time was pain in the little toe of the right foot. He gave a history of having known he had diabetes for eight years, but had gotten along satisfactorily on treatment consisting of occasional doses of insulin and diet. For about one week before this visit he noticed that the little toe of right foot pained him constantly. Home remedies failed to relieve condition.

Physical examination: The weight was 206 pounds, the former weight being 220. The blood pressure was 170/70. Nothing of importance was noted in the physical examination except the right little toe was red, swollen, cold to the touch, and sensitive.

Laboratory findings: The blood sugar was 300 mgs. per 100 c.c. of blood. The twenty-four-hour specimen of urine contained 10.4 grams of sugar. He was put on a weighed diet along with 12 units of insulin morning and night. The urine cleared up, the blood sugar dropped to 214 mgs., and the little toe improved.

He was not seen again until November, 1931.

*Read before the First District Medical Society, Statesboro, Ga., February 24, 1932.

At this time he was complaining of cramps in the legs and loss of sensation in the right foot. The foot was cyanotic, not cold, although no arterial pulsation could be felt. The urine was heavy with sugar and the blood sugar was 250 mgs. He had reduced the insulin dosage from 12 units twice daily to 20 units once a day. The insulin was now increased to 10 units three times a day. He could not stay in Savannah to be checked carefully.

On December 14th the patient was again seen. He complained of severe pains in right foot and leg and had been taking morphine for relief. The urine was loaded with sugar and the blood sugar was 300 mgs. per 100 c.c. Examination of the foot showed definite gangrene of the little toe with bleb formation, discoloration, and lymphangitis extending half way up the leg to the knee. A roentgenogram showed no bony involvement, but showed a sclerosis of arteries extending to the knee.

Rather than amputate the leg at once, it was decided to see what the result of ligation of the femoral vein would be. Under a local anesthetic the femoral vein in Scarpa's triangle was isolated, ligated, and severed. The foot and leg were wrapped in cotton batting and protected by a cradle. Under the cradle an electric bulb was suspended.

The next day a decided improvement was noted in the color of the foot. The improvement continued daily until the leg and foot assumed a normal aspect with the exception of the little toe, which had a raw surface on the inner side and was tender. The pain in the leg was relieved. In the meantime, the blood sugar dropped to 114 mgs., and the urine had become sugar-free. The patient was allowed to go home ten days after admission to the hospital and was not seen again until February 10th.

Both feet are now normal in appearance with the exception of the little toe, which has not entirely healed. There is also marked palpable pulsation of the dorsalis pedis and posterior tibial artery which could not be felt before operation. I had advised patient to use foot, but he had been afraid to do so because of pain when foot was lowered, but believe this condition will be corrected by exercise and use of foot.

This case has been reported in order that others may try this line of procedure rather than amputate the leg as soon as a discoloration of the toe appears. I would like to say here that amputation of a toe with well established gangrene is worse than useless. When amputation becomes necessary, it should be done at the point where the x-ray shows a healthy artery. In a majority of cases it will be necessary to amputate above the knee.

In handling diabetic cases, especially in patients over 40, it is just as essential to examine the arteries of the extremities at fre-

quent intervals and to get the patient's subjective symptoms relative to the feet and legs as it is to examine the blood and urine. If the physician finds that there is any discoloration of the toes or any beginning gangrene the vein should be tied off as in this case.

This is a progress report and up to date, the time since the operation would not warrant making any statement as to a permanent benefit, but at any rate the patient has a useful leg instead of a cork leg. The writer will appreciate any report of results obtained by others.

Throughout this case the proper diet and insulin dosage have been followed.

14 Taylor Street, East.

TUMOR OF THE BRAIN AND TRAUMA OF THE BRAIN*

Case Reports

EDGAR F. FINCHER, JR., M.D.

Atlanta

These two cases, aside from illustrating the problems which may confront one at the time of cranial exploration, because of their clinical similarity, form the basis for an interesting parallel study. There was a definite history of head injury in both cases. In one case the symptoms were due to a cystic glioma and in the other to an isolated subcortical hemorrhage. Both developed a complete paralysis of the side of the body. There was a complete disappearance of all neurologic findings following operation in both cases.

Case 1: Glioma (Astrocytoma) of the Right Temporo-Frontal Region.—A 4-year-old girl was admitted to Grady Hospital on June 14, 1930. Three weeks before she had fallen and injured her head. Immediately after this injury she complained of headache which lasted for a few hours. One week later she again complained of headache, and at this time there was an associated projectile type of vomiting. She became somewhat drowsy and apathetic and remained so for a week, when it was first noticed that there was a tremor and a loss of use of the left hand.

Neurologic examination on June 19, 1930, by Dr. R. B. Wilson, revealed a weakness of the left side of the face and almost a complete paralysis of the left arm and leg. Ophthalmoscopic examination was negative. The superficial abdominal reflexes on the left were quite sluggish and the knee-jerks on this side hyperactive.

With the possibilities of a primary cerebral lesion,

*Read before the Fulton County Medical Society, Atlanta, Ga., January 21, 1932.

a subcortical hemorrhage, or an organized subdural blood clot, on June 21, 1930, through an osteoplastic flap the right temporo-frontal area of the cerebrum was exposed. A needle introduced into the frontal lobe encountered a cyst and a quantity of cystic fluid was removed. The patient's condition did not warrant further surgery and the operation was completed with a subtemporal decompression.

Her general condition and hemiplegia improved for a few days, when there was a return of her symptoms. The cystic cavity was again tapped and about two ounces of cystic fluid removed. Following this she progressed very satisfactorily until August 1, 1930, when her symptoms again returned.

On August 14, because of a marked bulging of the bone flap, an engorgement of the retinal veins, a homonymous visual field defect, a left hemiplegia, a left ankle clonus and Babinski, she was operated upon again.

On opening the dura the cortex was under marked pressure, which tension was relieved by tapping the cystic cavity. An incision was then made through the cortex in the midfrontal convolution about 2.5 cm. in length. This opened into the cystic cavity. The cystic sac and intramural tumor nubbin were removed by dissection and suction. Microscopic studies showed the tumor to be a glioma similar to the cystic astrocytomas most commonly seen in the cerebellum.

The patient's immediate post-operative course was a bit unsteady, but she rapidly recovered, and after a series of X-ray treatments was permitted to go home. She had a second series of deep radiation therapy at the Steiner Clinic and has reported at regular intervals. She has shown no neurologic symptoms during this twenty-month interval since operation.

Comment: Not generally recognized, brain tumors constitute the largest single group of neoplastic diseases occurring in children. Hemlholz (1) in a recent study of 750 cases of new growths occurring in children found that 40 per cent of the lesions were in the brain. Cerebral tumors, as compared to those located in the cerebellum, are uncommon in children. Since the majority of tumors are located below the tentorium, there results an early secondary hydrocephalus. This giving rise to the general symptoms of increased intracranial pressure, namely, headaches, vomiting and choked discs. In the case here reported choked discs were not present, illustrating that the absence of this finding does not exclude the presence of a brain tumor.

This case also brings up the question as to the role trauma plays in the causation of cerebral neoplasms. Certainly in this instance the head injury only served to bring to the foreground symptoms of a pre-existing lesion.

Histologically this tumor was similar to the gliomas of the cerebellum studied by Cushing (2). It was his opinion that these cerebellar lesions were of congenital origin. Parker and Kernohan (3) in a study of 431 verified gliomas found a history of head trauma in 58 cases. On the other hand they found 45 cases with a history of head injury in an equal number of cases examined neurologically without tumor of the brain. It was their opinion that the incidence of trauma is too low to be suggested as an etiologic factor in glioma cases.

This case illustrates a surgical feature stressed by Sachs of St. Louis, namely, that if the intramural tumor nubbin is removed a cure is to be expected. Had this patient's condition warranted at the time of first operation it would not have been necessary to have repeatedly tapped the cystic cavity, and the final operation could have been carried out at the first exploration.

Case 2: Isolated Subcortical Hemorrhage of the Left Temporal Lobe.—This 7-year-old boy was admitted to Eggleston Hospital at the request of Dr. J. F. Schneider, in June, 1931. Nine months before he had fallen and injured the right side of his head, after which he had vomited several times and felt quite weak. He had no further trouble until November, 1930, when he had an attack of severe headache with an associated projectile type of vomiting, and a rather profound drowsiness. This attack subsided and a similar attack occurred in January, 1931, which lasted for twenty-four hours. He had no further trouble until the attack occurred which prompted hospitalization. With this attack there was an elevated temperature, a rapid, almost imperceptible pulse, a profound stupor, and it was noticed for the first time that he did not move his right extremities. When aroused he seemed to understand what was said to him, but made no effort to talk.

Together, with Dr. Wm. A. Smith, there was found on neurologic examination, a bilateral choking of the optic nerve heads, a right facial weakness, and a spastic paralysis of the right arm and leg. The right abdominal reflex was not obtained, nor was the right knee-jerk. There was present a bilateral Babinski reflex.

Anticipating an organized subdural blood clot, a traumatic cyst, or a primary cerebral neoplasm, on June 28, 1931, a left subtemporal exploration was done. The dura was very tense and when opened there was no pulsation of the brain visible; there was no evidence of a subdural hematoma. In the anterior tip of the middle temporal convolution there was a small yellowish degenerated area about 1 cm. in diameter. Withdrawing the stylet of a brain canula introduced

into this pathologic area there escaped fully an ounce of old chocolate-colored blood. The convulsion was then split, the cavity irrigated and after inspection a small drain placed within the cavity. Following evacuation of the old hemorrhage, the brain began to pulsate normally.

On the second day after operation, the patient began to move his right extremities and two weeks later he was discharged from the hospital completely recovered from his aphasia, general pressure symptoms, and hemiplegia.

Comment: In 1928 Coleman (4) stressed intracranial hemorrhage following injuries to the head. That a rather serious lesion may follow a trivial type of injury is well demonstrated in this case. The speech disturbance was of definite localizing value and prompted a subtemporal, rather than a large temporo-parietal exploration. Undoubtedly there was present a homonymous visual field defect but owing to the patient's inability to cooperate this valuable localizing information was not possible. Attention has been called to quadrant field defects in lesion of the anterior part of the temporal lobe and in this case the location and size was such that pressure on the optic nerve fibers as they course through the temporal lobe must have been present. No field defect could be made out on rough test after the patient's condition following operation permitted.

In contrast to the case of brain tumor, this case had a swelling of the optic nerve heads which measured two diopters. The time element might be offered as an argument for the absence of this finding in the case of the tumor of the brain. This can be refuted on the grounds that choked discs may develop within a period of hours in cases with increasing intracranial pressure. This traumatic case illustrates the necessity of a careful follow-up and repeated neurologic examinations in cases of head injuries.

In both of these cases it is demonstrated that a subsidence of cerebral symptoms does not mean a disappearance of the causative lesion. They both further demonstrate that in the case of children, when headaches and vomiting do not respond to simple measures, an organic cerebral lesion should be gravely suspected, and the patient should have a thorough neurologic examination.

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HEXAMINE TREATMENT OF MALARIAL COMA*

R. L. MILLER, M.D.

Waynesboro

Among the most perplexing problems that confront the physician who practices in an intensely malarial section are the pernicious forms of malaria. The emergencies which confront him are such that he should welcome anything that may help. Having tried everything in the treatment of the comatose form of malaria from inunctions of quinine to its intravenous use, I was glad to try hexamine.

Last summer Umansky, of the Uman Medical School, wrote:

Considering the encephalitic and meningitic varieties of malarial coma, I decided to try the administration of urotropine intravenously, in the hope of abolishing it. I remembered the power of the drug to pass the barrier of the cerebrospinal fluid, so that it was recommended by pediatricists and neurologists in the treatment of leptomenigitis. I also took into consideration the capacity of this drug for elimination in the secretions of the liver and kidneys. The course of the drug is exactly that of the malarial parasite, and it should apply its bacterial potency in just the necessary places.

He stated that he had treated ten patients in malarial coma by injecting 3 cc. of a 40 per cent solution of hexamine intravenously, all of whom came out of coma in from three to six hours. The fever and all other signs of malaria remained, as did the parasites in the blood. This showed that the hexamine did not directly affect the malarial parasite. He thought that the effects gained were due to the sweeping of the capillaries of the brain and the secretory canaliculi of the liver and kidneys, and the fixing power of the formaldehyde released by the hexamine. The latter

raised the specific gravity of the damaged erythrocytes, hindering their adherence to the walls of the capillary vessels, and facilitated their passage.

I wish to report the following case:

A negro of about 27 years, employed at a logging camp in the Savannah River Swamp, was seen by me on November 10, at 7 a.m. He had had a severe chill at 8 o'clock the night before and passed into a deep coma about 8:45. When I saw him he was in deep coma with slow and labored respirations. The rectal temperature was 107; the pulse 98, and the skin hot and dry. The spleen extended 3cm. below the costal margin. At 7:45 I gave him 3 cc. of a 40 per cent solution of hexamine intravenously. At 10:40 he began to show signs of returning consciousness. His temperature was 106 by mouth. I made a slide test for malaria which revealed estivo-autumnal parasites. At 10:55 I gave him twenty grains of quinine in solution and directed that he be given twenty grains every twelve hours for three days. On the third day he came to my office saying that he felt very well except for ringing in the ears and a bitter taste in his mouth.

I am aware that one should not draw conclusions from any one case. But my success in this case together with the report by Umansky makes me believe that hexamine administered intravenously is worthy of further trial in cases of malarial coma.

REFERENCE

Umansky, James: Treatment of Malarial Coma, *Lancet*, 2:349 (Aug. 15), 1931.

PROCEEDINGS OF THE GENERAL MEETING OF THE EIGHTY-THIRD ANNUAL SESSION OF THE MEDICAL ASSOCIATION OF GEORGIA Savannah, May 17-20, 1932

FIRST DAY—MORNING Wednesday, May 18

The first general meeting was held in the Ballroom of the De Soto Hotel, and was called to order at 10:10 by the President, Dr. Arthur G. Fort, Atlanta.

The President invited all Ex-Presidents in the audience to take seats on the platform, and declared the Eighty-Third Annual Session of the Medical Association of Georgia duly opened.

Invocation: Dr. C. C. J. Carpenter, Savannah.

Oh Lord, be with us and direct us, Oh Lord, in all our difficulties. Give us Thy continual help that all our works may be continued and ended in Thee, that we may glorify Thy holy name, and by mutual understanding and fellowship enlarge the Kingdom of God in this world. We ask it in the name of the Lord, our Savior, Jesus Christ, Amen.

Address of Welcome: Dr. R. V. Martin, Savannah.

Mr. President, gentlemen of the Medical Association of Georgia and distinguished guests:

It is with pride and much pleasure that we welcome you here this morning in behalf of the Georgia Medical Society.

You have come to participate in that glorious work of devising further means and measures, not only for the curing of disease, but for educating the people in health laws, and in the prevention of the spread of plagues and pestilences and for the building of a

better and more enduring defense against those infective, invading, and destructive organisms which have such a predilection for interfering materially with the health, happiness, and equanimity of mankind.

A few decades ago, probably within the memory of many of our citizens, it would have been impossible for such a gathering as this to have been held in Savannah because of the then existing pestilence, but thanks to the unrelenting effort of a determined body of medical men, we have emerged for all time from those unbearable conditions, and today we meet you under the most pleasant and auspicious circumstances, and we rejoice at the opportunity of greeting you as members and distinguished guests of the Medical Association of Georgia.

So much has been said of the men who fight our battles and those who perform in our various legislative halls, that the heroes of the more quiet professions have been almost entirely forgotten, however, may I not say in the language of the late Sir William Osler that, "Indeed it is no idle challenge when we claim that ours is the noblest of them all".

Medicine has emerged from the chrysalis of empiricism into a science based upon investigation and search for truth and facts, and today we are delighted to act as a forum through which your deliberations will take place. We hope that the results of this convention will be far reaching in its contributions to medical science, and that at its conclusion we will be so solidly united that we may occupy a most strategic position to go forward as a solid phalanx in organized medicine, better prepared to defend ourselves from the assaults of the various cults and many other menacing organizations which are appearing in the near distance under the new order of things.

You have come from the various parts of the State and we open our arms to receive you. There springs from the heart of each of us a welcome more sincere and more enduring than words can express.

We hope that you will enjoy the hospitality and entertainment which we have prepared for you, that your stay among us will be most gratifying, and when your duties attendant upon this convention are concluded and you are prepared to return to your various homes, our hope and our desire is, gentlemen, that you will carry with you kindly recollections and pleasant memories of our city and its people whose guests you were and who were so eminently honored by your coming.

Response to Address of Welcome: Dr. S. T. R. Revell, Louisville.

Mr. President, Gentlemen of the Medical Association of Georgia and Guests:

As the delegated representative of the Medical Association of Georgia, it is my pleasant privilege to respond to these gracious words of welcome, and in doing so, endeavor to express the appreciation of organized medicine in Georgia, for the opportunity of being and sharing with you the pleasures of this annual occasion.

At the annual meetings of the Medical Association of Georgia, when it has been determined that Savannah will be our next meeting place, there is usually a look of pleasant anticipation on the countenances of the members present, their eyes sparkle and faces glow. We see the same look on the faces of boys when a holiday affords them the opportunity of going home. Permit me to carry the simile a step further, by attempting to portray in words the relationship existing between these emotions. In the former, there is the recollection of delightful experiences, at which times their ambitions were stimulated and minds enriched by conversations with, and dissertations by, the best in our profession, their bodies fed by delectable foods and personalities

quicken by delightful social intercourse. In the minds of the latter, there is associated the hallowed memories of all that is dearest in life, the family circle, with its laughter and sometimes tears, the pleasant banter among those of our innermost circle, the latest stories, and last, but by no means least, the laden table with its savory viands. Furthermore, that strength may be given this figure of speech, organized medicine in Georgia had its inception in Chatham County, and it is meet that the child should visit the parent.

Dr. Victor H. Bassett very kindly furnished me with a *resume* of the history of the Medical Association of Georgia, and it would be difficult to think of a more propitious occasion than the present, for briefly mentioning the high points and recounting some of the lofty purposes and achievements of its illustrious members.

The Georgia Medical Society is one of the oldest in the United States, having been founded in 1804, forty-five years before the Medical Association of Georgia was organized. In point of age, it is the thirteenth City Medical Society in this country, however, as several of the earliest of these medical societies have lost their identities, this society is, at present, the second oldest medical society extant in the United States. It was incorporated under the laws of Georgia, "for the purpose of lowering the mortality induced by climate and incidental causes and of improving the Science of Medicine". While not intended at the time of its formation, as a state medical society, its body politic, extended beyond the confines of Chatham County and its roster contained the names of some regular members from adjoining counties and corresponding ones from remote parts of the state, and also a few from other States.

Dr. Noble Wimberly Jones, The Georgia Patriot, who served in the Continental Congress, was the first President of this Society and with him were associated seventeen other physicians from Savannah. The Society adopted a code of ethics and began to assist the city government to improve the health conditions by advising drainage and other sanitary measures for the prevention and control of epidemics. In 1820, 1854, and 1876, the members of this Society served the community by supplying their professional services in combating the Yellow Fever epidemics and about twenty of them paid with the price of their lives, for their services to humanity. "Their work was incomplete and their brethren mourned".

I shall briefly mention the high points in the lives of two other members of this Society, namely: Drs. Richard D. Arnold and John LeConte. Dr. Arnold was probably the foremost physician in Savannah, where he practiced from about 1830 to 1876. He served ten years as Alderman and five years as Mayor of Savannah, was President of the first Board of Education in this city, and was one of the founders and later President of the Georgia Historical Society. Despite these varied and onerous extramedical activities, he was primarily concerned with medical education and was for many years Professor of Medicine at the Savannah Medical College. He was President of the Georgia Medical Society, one of the founders, and subsequently President of the Medical Association of Georgia. He was also instrumental in forming the American Medical Association and a frequent delegate to the National Medical Assemblages. His most important contribution to medical literature was an essay on Yellow Fever, which was illustrated by colored plates.

Dr. LeConte was born in Liberty County, educated at the University of Georgia and the College of Physicians and Surgeons of New York City. He practiced

medicine in Savannah, from 1842 to 1846, and, during this period, wrote a number of papers on medical subjects. It would seem that he grew tired of the trials and disappointments of a practitioner of medicine, for we next see him in the role of peripatetic professor, first at the University of Georgia, and then successively at the College of Physicians and Surgeons of New York, the University of South Carolina, and the University of California. In the last institution he was President and also held the chair of Physics. However, he seems to have been unable to completely detach himself from his first love—medicine, for from time to time we see him writing on medical subjects. He was the first American physician to demonstrate that cancer is on the increase and his observations on the physiology of the nervous system, vision, light and the voice are noteworthy contributions to these subjects. A great portion of his life was spent in teaching, and, therefore, protected from the vicissitudes of every day existence; however, he was honored by the leaders of educational thought in the nation and died revered by his profession.

Time does not permit me even to mention the names of those men of medicine, whose lives of self-sacrifice, character and achievement, entitle them to a prominent place on the scroll of fame. A slight acquaintanceship with some of the present day members of this Society convinces me, that not only were our departed brethren famous in our medical annals, but they were also prepotent, for their children bear high the torch received from falling hands.

Is it any wonder that the members of the Medical Association of Georgia are glad to be with you? Is there not something in the hearts of most of us that makes us love traditions and old friends? We are glad to be here and we thank you for this opportunity of sharing with you the pleasure and benefits of this occasion.

Report of Committee on Arrangements: Dr. A. A. Morrison, Savannah.

Mr. President, I will not take up your time other than to state that the Savannah Golf Club is open to all guests and their friends. If anyone wishes to do any trap shooting or fishing they will be taken care of if they will let the Committee know.

Telegrams: Secretary Bunce read a telegram that had been received from Dr. G. Y. Moore, expressing his regret at his inability to attend the meeting.

Also a telegram from Dr. R. C. Woodward, a former member of the Association now located at Miami, conveying greetings to the Association.

The Secretary also announced the time and place of the meetings of the Woman's Auxiliary, of the Georgia Urological Society and of the Committee from the American College of Surgeons.

Report from House of Delegates:

Secretary Bunce gave an abstract of the proceedings of the House of Delegates at its meetings on Tuesday, May 17, and of the meeting of the Committee on Medical History of Georgia.

The Secretary explained that the proposed change in the By-Laws required a vote of the General Assembly.

Dr. John W. Simmons moved that the House of Delegates be supported in its action, including the proposed change.

The motion was seconded and unanimously carried.

Scientific Program: Dr. Wallace L. Bazemore, Macon, read a paper entitled, "Tuberculosis of the Kidney; Symptoms, Treatment and Apparent Prevalence in Georgia".

Dr. S. A. Kirkland, Atlanta, read a paper entitled, "Abnormal Ureters".

Dr. E. B. Anderson, Americus, read a paper entitled, "Perinephritic Abscess".

These three papers were discussed by Drs. S. J. Sinkoe, Atlanta; William Shearouse, Savannah; Earl Floyd, Atlanta; J. L. Pittman, Atlanta; R. F. Wheat, Bainbridge; W. A. Upchurch, Atlanta; George W. Fuller, Atlanta; H. Y. Righton, Savannah; Wallace L. Bazemore, Macon; S. A. Kirkland, Atlanta; and E. B. Anderson, Americus.

Dr. Everett L. Bishop, Atlanta, read a paper entitled "Biopsy". Discussed by Drs. C. C. Harrold, Macon; A. J. Ayers, Atlanta; William Perrin Nicolson, Jr., Atlanta; J. L. Campbell, Atlanta; V. H. Bassett, Savannah; and E. L. Bishop, Atlanta.

President Fort declared a five minute recess before the Abner Wellborn Calhoun Lecture, and when he called the meeting to order requested Dr. James E. Paullin, Chairman of the Committee, to introduce the guest of honor, Dr. Dean Lewis, Baltimore.

DR. PAULLIN: Mr. President, Members of the Medical Association of Georgia:

I feel that in the selection of the fifth speaker to appear on the Abner Wellborn Calhoun Lectureship we have been most opportune and most fortunate. As our guest today we have a man who has distinguished himself in all branches of the surgical field, having been Professor of Surgery at Rush Medical College, Chicago, at the University of Illinois, and who is now Professor of Surgery and Surgeon-in-Chief at Johns Hopkins in Baltimore. Not only has he attained the pinnacle in surgery, but he also distinguished himself by meritorious service to his country during the World War. Furthermore, we feel that the American Medical Association did itself a double honor in that they have selected for their President-Elect none other than our distinguished speaker on this Foundation. We feel doubly honored in having Dr. Dean Lewis with us today, and he will speak to us on "The Clinical Manifestations of Malignant Disease".

It is with a great deal of pleasure that I present to you Dr. Lewis of Baltimore.

DR. DEAN LEWIS: Mr. President and members of the Association: I indeed felt greatly honored when I was invited to give the Abner Wellborn Calhoun Lecture before this Association. It must be an inspiration to everyone to aid in carrying on the name of so distinguished a man.

Dr. Lewis then presented an illustrated address.

DR. C. C. HARROLD: Mr. President, I move a rising vote of thanks to Dr. Lewis for coming down and giving us such an interesting and illuminating address.

The motion was seconded by several and unanimously carried.

The President announced that the remaining paper on the program would be taken up first in the afternoon, and declared the meeting adjourned at 1:30, to reconvene at 2:30 p. m.

FIRST DAY—AFTERNOON

The Association reconvened and was called to order at 2:45 by Vice-President, Dr. Marion C. Pruitt, Atlanta

Scientific Program:

DR. JACK JONES and DR. H. S. ALDEN, Atlanta, presented a paper entitled, "Cosmetic Dermatology". Discussed by Drs. G. T. Bernard, Augusta; Francis Blackmar, Columbus; J. W. Palmer, Ailey, and H. S. Alden, Atlanta.

DR. FRANCIS BLACKMAR, Columbus, read a paper entitled, "Symptoms and Diagnosis of Sinus Disease".

DR. WILLIAM O. MARTIN, JR., Atlanta, read a paper entitled, "Complications of Sinus Disease."

DR. CALHOUN McDougall, Atlanta, read a paper entitled, "Treatment of Sinus Disease".

These three papers were discussed by Drs. William Mithoefer, Cincinnati, (by invitation); George H. Lang, Savannah; B. H. Minchew, Waycross; B. McH.

Cline, Atlanta; L. C. Rouglin, William O. Martin, Jr., Atlanta, and Calhoun McDougall, Atlanta.

DR. D. H. GARRISON, Tate, read a paper entitled, "Vitamine Therapy". Discussed by Drs. William R. Dancy, Savannah; Hal M. Davison, Atlanta, and Dr. D. H. Garrison, Tate.

Secretary Bunce read a telegram from Mr. C. P. Loran, Secretary of the Southern Medical Association, extending greetings and best wishes for a successful meeting.

The Secretary announced that the Council had requested him to call attention to the scientific and commercial exhibits, and urged that everyone make it a point to visit the exhibits and encourage the exhibitors to continue their patronage.

The Secretary also announced the plans for the Alumni dinners at 6:30, and extended an invitation to all visitors to attend these dinners.

DR. J. REID BRODERICK, Savannah, read a paper entitled, "Coronary Thrombosis and Angina Pectoris". Discussed by Drs. J. A. Fountain, Macon; C. C. Aven, Atlanta; E. A. Bancker, Jr., Atlanta; E. D. Shanks, Atlanta; J. A. Redfearn, Albany; S. T. R. Revell, Louisville, and J. Reid Broderick, Savannah.

DR. WILLIAM PERRIN NICOLSON, JR., Atlanta, read a paper entitled, "Observations of Some Common Breast Lesions". Discussed by Drs. J. Turner McCall, Rome; C. H. Richardson, Macon; and William Perrin Nicolson, Jr., Atlanta.

Secretary Bunce announced that the House of Delegates would meet at 8:00 a.m., Thursday, and that President Fort would call the General Meeting to order promptly at 8:30 a. m.

The Chairman declared the meeting adjourned at 6:15 p. m., to reconvene at 8:30 p. m.

FIRST DAY—EVENING

The Association met and was called to order at 8:40 p. m., by Dr. Ralston Lattimore, Savannah.

Presentation of Badge of Service:

Dr. James M. Smith, Valdosta.

(Copy of address was printed in the June issue of *Journal* on page 217).

RESPONSE: Dr. Arthur G. Fort, Atlanta. (Copy of address was printed in the June issue of *Journal* on page 217).

President Fort then took the Chair and requested Dr. Lewis M. Gaines to introduce the first of the guest speakers, Dr. Walter C. Alvarez, Rochester.

DR. GAINES: I am very happy to be able to introduce our next speaker, who is a Californian by birth, a graduate of Stanford University, a postgraduate of Harvard University, and who was for a number of years during the morning Associate Professor of Research in the Medical School of the University of California, in the afternoon had a heavy private practice and did a great deal of work in research at night, until a neurosis ran him out. The burden became so heavy that when he was called to the Mayo Clinic, in 1926, he was very grateful to have an opportunity to carry on a great deal of research work, which he has continued since then, being Associate Professor of Medicine in the University of Minnesota. His work is well known. His book on "Disorders of the Digestive Tract" has become a classic, and his recent book "Nervous Indigestion" is now well known. His chances for investigation are unparalleled, he has a most practical outlook on medicine and is a keen psychologist.

I have much pleasure in introducing Dr. Walter C. Alvarez, of Rochester.

Dr. Alvarez then addressed the Association on, "Practical Points in the Care of Patients with Indigestion".

Dr. Ralston Lattimore moved a rising vote of thanks to Dr. Alvarez for his splendid address.

The motion was seconded and unanimously carried.

President Fort requested Dr. George H. Lang to introduce the next guest speaker of the evening, Dr. William Mithoefer, Cincinnati.

DR. LANG: To those of you who attended the meeting this afternoon and listened in on the symposium on diseases of the sinus our guest speaker needs no introduction, for by invitation he discussed those papers and if you did not know before who he was you certainly realized immediately that he is a man who is a master of his subject. To those of you who practice oto-laryngology he needs no introduction, for his writings have appeared in every special journal that is worth while in this country. To those of you who come under neither classification it is only necessary for me to say that he is a man of outstanding qualifications, a man who enjoys an international reputation, and a man who has done a great deal for the development of rhinology and oto-laryngology.

It gives me great pleasure to introduce Dr. William Mithoefer of Cincinnati.

DR. MITHOEFFER: Mr. President, Gentlemen of the Association: I have always said that there is nothing in this world so great as what you feel, and I want you all to know that I feel right in Georgia.

Dr. Mithoefer then addressed the Association on, "The Relation of Diseases of the Nasal Accessory Sinuses to Systematic Derangements".

Dr. Blackmar moved that a rising vote of thanks and appreciation be extended to Dr. Mithoefer for his scholarly address.

The motion was seconded and unanimously carried and the President declared the meeting adjourned at 10:30 p. m., to reconvene at 8:30 a. m., Thursday.

SECOND DAY—MORNING

Thursday, May 19, 1932

The Association reconvened and was called to order at 9:40 a. m., by the President, Dr. Arthur G. Fort, Atlanta.

Scientific Program:

DR. J. GASTON GAY, Atlanta, read a paper entitled, "Jaundice: The Effects on the Liver of Experimental Ligation of the Common Duct and Partial Hepatectomy". Discussed by Drs. L. Minor Blackford, Atlanta; James E. Paullin, Atlanta, and J. Gaston Gay, Atlanta.

Symposium—The Psychoneuroses.

"The Origin and Development of the Psychoneuroses." Lewis M. Gaines, Atlanta.

"The Ocular Manifestations." F. Phinizy Calhoun, Atlanta. "The Circulatory Manifestations." E. F. Wahl, Thomasville. "The Digestive Manifestations." R. H. Oppenheimer, Atlanta. "The Sex Question." Walter W. Young, Atlanta. "The Treatment of the Psychoneurotic State." W. R. Houston, Augusta.

These six papers were discussed by Drs. George L. Echols, Milledgeville; L. Minor Blackford, Atlanta; J. A. Redfearn, Albany, and James N. Brawner, Atlanta.

PRESIDENT FORT: As your President, I feel very grateful to the Committee on Scientific Work particularly for the program of this morning, and I wish to thank each of you gentlemen for your participation in the program. I think it will go down in the history of the Association as one of its bright spots.

Dr. Fort requested President-Elect, Dr. M. M. Head, to take the Chair.

Secretary Bunce announced that a meeting of the Council had been called immediately after adjournment of the afternoon meeting, and that the resolution from the Woman's Auxiliary had been adopted by the House of Delegates.

DR. M. M. HEAD: For one year we have had the pleasure of dealing with Dr. Arthur G. Fort, who has done some real work for the Medical Association of Georgia. It is now time for his Presidential Address, which I am sure we will all be glad to hear.

Dr. Fort then delivered his Presidential Address entitled, "Economic Drift of Modern Medicine."

Memorial Exercise: Dr. A. J. Mooney, Statesboro. Song by Dr. E. L. Bishop entitled, "There is no Death."

(Tribute to deceased members printed in the June issue of Journal on 218).

On motion of Dr. James E. Paullin the Association stood with bowed heads for a moment in respect to the dead.

Secretary Bunce requested anyone who knew of any name that had been omitted from list presented by Dr. Mooney to please give it to him at once so that it might appear on the official records.

The President declared the meeting adjourned at 12:45, to reconvene at 2:30 p. m.

SECOND DAY—AFTERNOON

The Association met and was called to order at 2:40 by the President, Dr. Arthur G. Fort, Atlanta.

Scientific Program:

DR. B. MCH. CLINE, Atlanta, read a paper entitled, "Peroral Endoscopy in Relation to General Medicine." Discussed by Drs. I. W. Irvin, Albany; L. Minor Blackford, Atlanta; Hal M. Davison, Atlanta, and B. McH. Cline, Atlanta.

DR. G. LOMBARD KELLY, Augusta, read a paper entitled, "The Effects of Injections of Ovarian Follicular and Anterior Pituitary Hormones on Conception and Pregnancy in Laboratory Animals." (No discussion.)

DR. C. H. WATT, Thomasville, read a paper entitled, "An Efficient Method of Traction for Fractures of Femur." Discussed by Drs. C. F. Holton, Savannah; William S. Goldsmith, Atlanta, and C. H. Watt, Thomasville.

Secretary Bunce announced that Dr. Abercrombie had made arrangements for sending to each physician in Georgia a monthly report of all communicable diseases in the State.

DR. T. F. ABERCROMBIE: I wish this time to express my appreciation of the reports that are being sent in by the physicians throughout the State. We are very glad to be able to render this service to the physicians of Georgia. Those physicians living near Health Centers can get the reports from the Center, but to others they will be mailed direct.

DR. H. F. SHARPLEY, JR., Savannah, read a paper entitled, "The Method of Precision in the Diagnosis of Early Pregnancy. (Aschheim-Zondek Test)." Discussed by Drs. Lawrence Lee, Savannah; B. T. Beasley, Atlanta; G. Lombard Kelly, Augusta; Allen H. Bunce, Atlanta, and H. F. Sharpley, Jr., Savannah.

Symposium: Public Health.

"The Physician's Part in the Public Health Program"—J. A. Redfearn, Albany.

"How Much Curative Medicine Should a Health Department Do to Put Over an Adequate Health Program"—C. L. Ridley, Macon.

These two papers were discussed by Drs. J. D. Applewhite, Macon; J. W. Simmons, Brunswick; T. J. McArthur, Cordele; T. F. Abercrombie, Atlanta; M. F. Haygood, Alto; J. A. Redfearn, Albany, and C. L. Ridley, Macon.

PRESIDENT FORT: For Dr. Simmons' information I will tell him that I know several doctors in Georgia who follow his suggestion of keeping a card index and remember children with birthday cards. Those gentlemen have very few patients going to the Health Department.

The president declared the meeting adjourned at 5:30 p. m. to reconvene at 9:00 a. m. on Friday.

THIRD DAY—MORNING

Friday, May 20, 1932

The Association met and was called to order at 9:10 a. m. by Dr. S. T. R. Revell, Louisville.

Scientific Program:

Symposium: Pediatrics.

"Rickets"—Mercer Blanchard, Columbus.

President Fort arrived and took the chair.

"Intracranial Birth Hemorrhages"—C. M. Burpee, Augusta.

"Common Cold"—A. J. Waring, Savannah.

These three papers were discussed by Drs. W. W. Anderson, Atlanta; C. E. Boynton, Atlanta; Benjamin Bashinski, Macon; M. Hines Roberts, Atlanta; W. A. Mulherin, Augusta; James A. Wood, Atlanta; Lee Howard, Savannah; Thomas E. Rogers, Macon; Mercer Blanchard, Columbus; A. J. Waring, Savannah, and C. M. Burpee, Augusta.

Secretary Bunce announced that the Pediatric Club would hold its annual luncheon at 1:00 p. m., in the adjoining room.

DR. M. J. EGAN, Savannah, read a paper entitled, "Carcinoma of the Colon." Discussed by Drs. Thomas Harrold, Macon; George F. Eubanks, Atlanta; W. A. Selman, Atlanta; Ralph H. Chaney, Augusta, and M. J. Egan, Savannah.

DR. EDGAR F. FINCHER, JR., Atlanta, read a paper entitled, "The Clinical Significance of the Classification of Gliomas." Discussed by Drs. Ralph H. Chaney, Augusta; Lee Howard, Savannah, and Edgar F. Fincher, Jr., Atlanta.

DR. S. F. ROSEN, Augusta, read a paper entitled, "Amebiasis: Its Prevalence and Protean Manifestations." Discussed by Drs. V. P. Sydenstricker, Augusta, and S. F. Rosen, Augusta.

Report From Committee on Exhibits:

Dr. W. A. Selman, Atlanta, in the absence of the Chairman, presented the following report:

Mr. President and Members of the Association:

The Committee has examined the scientific and commercial exhibits offered at the present meeting, and report as follows:

While the number of exhibits is smaller than we wish to see, we found them attractively arranged, and comparing favorably to similar exhibits seen at other medical meetings. The educational value of such exhibits cannot be overemphasized, and effort should be made to increase their number.

The scientific exhibits indicated that much thought and care was expended upon them, and the Association expresses its appreciation and thanks for such a valuable addition to the meeting. Two exhibits were entered after the publication of the program, one by Dr. J. J. Clark and Dr. C. E. Rushin, of Atlanta, and the other by Dr. H. F. Sharpley, Jr., of Savannah.

The Committee missed the familiar exhibits of the medical publishing houses.

The Committee recommends that effort be made to increase the number of exhibits at future meetings. Procuring scientific exhibits might be part of the work of the Committee on Scientific Work, or a special committee might be appointed for the purpose.

The Committee recommends that at the beginning of each annual meeting, the President appoint a Committee on Awards, the purpose of which will be to visit all exhibits, scientific and commercial, express the appreciation of the Association to those who have taken part in such exhibits, and make a report to the Association.

Furthermore, the Committee on Awards shall award a first and a second prize, in the form of certificates,

to the exhibits judged to be first and second in excellence.

Respectfully submitted.

(Signed) FRANK K. BOLAND, Chairman,
W. A. SELMAN,
J. A. REDFEARN,
K. S. HUNT.

Dr. W. H. Myers moved that this report be accepted with thanks.

The motion was seconded by Dr. J. O. Elrod and unanimously carried.

SECRETARY BUNCE: Gentlemen, I wish to call your attention to the silver loving cup which was presented to the Association last year by Dr. L. G. Hardman, the first physician to be Governor of Georgia in over a century. At the 1931 meeting a Committee from the Council was appointed to take charge of this matter. Since it was manifestly impossible for the Committee to review and consider the work done at the time of the meeting, the Council appointed a subcommittee, consisting of Drs. W. A. Selman, W. H. Myers, W. A. Mulherin, C. C. Harrold, and C. H. Watt, to select the name of the man that should be engraved on the cup before the next annual meeting. I have the cup here for your inspection and you can see that it is a very beautiful one.

Resolutions:

Dr. C. L. Ayers presented the following resolutions:

Whereas, It has been a great pleasure and privilege for the Association to be the guest of this city so abounding in history, so noted for its hospitality, where politeness grows on trees and good manners bloom in every house, and,

Whereas, It is a joy to carry away the memories of every minute of our time, that has been crowded with both pleasure and profit; Therefore be it

Resolved, That the Medical Association of Georgia extend to our Committee on Scientific Work our sincere thanks and appreciation for one of the best and most scientific programs in the history of the Association, and be it further

Resolved, That we extend to the management of the De Soto Hotel our thanks for their courtesies to us while in the City, and to all those who have presented the splendid scientific and commercial exhibits, and be it further

Resolved, That we extend to the Georgia Medical Society, the Savannah press and the people of Savannah our most profound gratitude and appreciation for their wonderful entertainment and the many kindnesses extended to us while in their city.

Dr. T. J. McArthur moved the adoption of these resolutions.

The motion was seconded by Dr. Marion T. Benson and unanimously carried by rising vote.

Telegrams: Secretary Bunce read telegrams that had been received from Dr. Theodore Toepel and Dr. Stewart R. Roberts expressing their regrets at their inability to attend the meeting and a telegram from the Governor asking how many homeopathic physicians were present, and if none was present if anyone knew their home addresses.

Dr. Marion T. Benson reported that Dr. H. F. Duffie resided in Atlanta, Dr. M. T. Cleckley in Augusta, and Dr. T. M. Talbot, in Valdosta.

Secretary Bunce announced that a meeting of the Council would be held immediately after the election of officers.

President Fort declared a recess of ten minutes before proceeding to the election of officers at 12:00 noon.

Election of Officers:

The Association was called to order promptly at 12:00 o'clock by the President, who requested the Secretary to read the Sections of the By-Laws, covering the election of officers.

The Following Officers Were Elected:

Dr. Chas. H. Richardson, Macon, President-Elect.
 Dr. A. A. Morrison, Savannah, First Vice-President.
 Dr. D. H. Garrison, Tate, Second Vice-President.
 Dr. J. W. Simmons, Brunswick, Parliamentarian.

Delegates to American Medical Association

Dr. Wm. H. Myers, Savannah, 1933-1934.
 Alternate, Dr. Wm. A. Mulherin, Augusta.
 Dr. C. W. Roberts, Atlanta, 1933-4.
 Alternate, Dr. Marion C. Pruitt, Atlanta.

Councilors

Dr. C. L. Ayers, Toccoa, Ninth District.
 Dr. S. J. Lewis, Augusta, Tenth District.
 Dr. J. E. Penland, Waycross, Eleventh District.
 Dr. J. Cox Wall, Eastman, Twelfth District.

Meeting Place for 1933

Macon was selected as the meeting place for 1933. Invitations were extended by the Macon Medical Society (Bibb County), the Mayor of Macon, and a number of civic organizations.

Installation of Officers:

President Fort requested Dr. M. M. Head, President-Elect, to come to the platform.

DR. FORT: If your Committees of the Medical Association of Georgia and the Woman's Auxiliary back you up as they have me, when you come to deliver the gavel to Dr. Richardson you will look back over a very pleasant year, and if your President-Elect is as good a scout with his President as you have been with yours it will be a doubly pleasant year. Marvin, wield the gavel as you will.

DR. HEAD: Dr. Fort, fellow members of the Medical Association of Georgia: I promise you faithfully that I will perform every possible duty in the best way I know how. I wish to say that I will appreciate all the help from the different departments, and all the help any individual member will give me, for I realize that no one man, without help from the others, can be successful.

Dr. Fort requested the newly elected President-Elect, Dr. Richardson, to come to the platform.

DR. FORT: You have a rough road ahead of you, but knowing you as I do I am sure that with your fine character and winning ways you will be very successful.

DR. RICHARDSON: I am deeply grateful for this great honor you have conferred upon me, and through me upon the city I represent. If I were anything less I would not be worthy of the confidence you have imposed in me. At times like this there is one thing uppermost in my mind, and that is the generalized help I have had from you all from all sections of the State. There are strenuous times ahead in medicine and we shall lean very heavily upon that support. I promise you that we shall make every attempt to do the work in the same way that it has been done by the men who have just preceded us.

Dr. Fort requested the newly elected First Vice-President, Dr. Morrison, to come forward.

DR. FORT: Dr. Morrison, you have shown your ability to serve in every capacity in the Medical Association of Georgia, and it is with pleasure that we accept you as our First Vice-President.

DR. MORRISON: I accept this honor from the depths of my heart, and I hope to be able to assist the President in every way possible.

DR. FORT: Our Second Vice-President is not present at this moment, but I will request Dr. Coker to extend to him our best wishes, and I am sure he will assist you, Dr. Head, and will be an efficient Vice-President.

Dr. Fort then requested Dr. Simmons to come forward, and said: Dr. Simmons, we are going to co-operate with you and we know you will with us. It is a pleasure to welcome you as Parliamentarian.

DR. SIMMONS: I wish to say that if the incoming

President presides over the meetings in the high-handed, dictatorial way Dr. Fort has done he does not need a Parliamentarian, but if any of you wish more gentle ruling or help in any way, just speak to your Parliamentarian.

Dr. Fort then introduced the delegates to the American Medical Association, and the Councilors who were still present.

PRESIDENT HEAD: If there is nothing further to come before us at this time, I will call attention to the meeting of the Council immediately, and declare the Eighty-Third Annual Session of the Medical Association of Georgia adjourned, to meet in Macon in 1933.

ALLEN H. BUNCE,
Secretary-Treasurer.

The Physical Examination As An Instrument of Research

In research investigations, the United States Public Health Service states, the determination of the physical fitness or condition of a group of persons has proved a difficult problem. No simple solution is to be expected. It is necessary to piece together information from whatever source it can be obtained, with an eye to the precise nature of the investigation itself. All possible means of measuring physical condition must be brought into play—mortality, sickness, and the general physical examination.

Advancement of scientific knowledge rests to a large extent on the improvement of technique. In no field is this more needed than in that of the physical examination. Today, although technique acquired with much difficulty is employed in making it, no two doctors really follow the same procedure. It must be made clear that the demands of analysis of data collectively are different from the absolutely necessary demands of clinical medicine. The physician, looking for definitely pathological conditions, will probably not fail to note any really serious and practically determinable condition. However, if the results are to be used for statistical purposes, differences in standards of judgment become extremely important, because the minor degrees of impairment are so much in the majority.

Thus the standardization of the physical examination is fundamental in research work. The following principles are suggested:

1. No impairment can be regarded as susceptible of quantitative analysis unless we can be sure that the condition has been looked for in each individual, and checked as present or absent.
2. Most impairments encountered in examinations are matters of degree, varying from slight deviations from the normal to very serious conditions. These degrees should be indicated.
3. It is necessary that these degrees mean more or less the same thing to the different examiners. Special intensive training of the examiners is required.
4. Special stress should be placed on the quantitative aspects of the examination, because these can be most effectively analyzed.
5. The examination should be "blind" in so far as practicable—i.e., the examiner should not know

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THE JOURNAL

OF THE
MEDICAL ASSOCIATION OF GEORGIA
Devoted to Welfare of Medical Association of Georgia

139 Forrest Ave., N. E., Atlanta, Ga.

JULY, 1932

CYSTOSCOPIC RESECTION OF PROSTATIC OBSTRUCTION

To the older members of the medical profession the recent progress in the removal of prostatic obstruction by cystoscopic resection recalls the work of Bottini and the early cauterization of bars at the vesical neck. His pioneer effort to lessen the obstructive suffering of elderly men might well be likened to the early automobile. Both were crude and both were far from the goal later reached.

Cystoscopic resection now carries the elderly patient by urinary obstructive troubles much like the modern car carries the motorist over modern roads. The motorist who heeds the detour signs avoids dangerous places in the road and thereby saves time and trouble. In life's journey, symptoms warn men of trouble ahead. Until rather recently, even though efforts were made to heed the signs of approaching trouble, little could be done by medicine or surgery to lessen the troubles associated with prostatic obstruction and the open operation for its relief.

Thanks to the wisdom and vision of cystoscopists and electrical engineers, during the past thirty years, step by step, advances have been made until now urology points with well-deserved pride to cystoscopic resection of prostatic obstruction, a minor measure replacing a major cutting operation.

Confined to its limited field of usefulness, the Bottini operation was of value, but its field was too limited and its misuse for inappropriate obstructions lead to its abuse and soon its disuse.

Before transurethral resection became possible it was necessary to improve cystoscopes to permit easy, exact, and adequate manipulation of electrode loops. Furthermore, electrical currents which would cut tissue were necessary. The early improved currents would cut in air only; soon it was found the currents would cut in mineral oil; and later

changes were advanced which made it possible to cut in water as well as to control bleeding. This greatly extended the usefulness of cystoscopic removal of prostatic obstruction. During the developmental period early supporters of the so-called "punch" methods with plain punches, cautery punches, and the men working with coagulation currents were laying the foundation for the more perfect resection method, destined to replace the various modifications of the punch methods, as well as open prostatectomy. This work developed skillful cystoscopists accustomed to recognize and remedy the various affections of the deep urethra and vesical neck. The training thus acquired rendered the use of the improved instruments and new currents comparatively easy. Moreover, this exact, though technical procedure, is attended with surprisingly little shock, pain, or physical disturbance, and is suitable for at least 85 per cent of patients with obstructive symptoms.

The various reasons which caused the postponement, as long as possible, of prostatectomy by the cutting method now become effective points in the argument favoring early cystoscopic resection. In these depres-

The JOURNAL would like to record the scientific work of Georgia doctors. It earnestly requests, therefore, that each physician in the State who publishes a contribution in some other medical periodical submit an abstract of the article for these columns.

sion days, still another reason favors cystoscopic resection, namely, the lessened hospital expense and short period of disability.

By removal of obstructions, while the patients are still good surgical risks, before infection and back pressure damage to the kidneys have occurred, the morbidity as well as mortality are greatly reduced.

In view of the foregoing, it is not surprising, therefore, that this procedure has created more comment and discussion than any advance heretofore made in urology.

As to ultimate results, fifteen or twenty years may yet be required for exact facts. Many years of experience with the punch

method in its best modifications afford, however, very definite facts which indicate that adequate removal of obstructive tissue provides results quite equal, or superior, to those following prostatectomy.

EDGAR G. BALLENGER, M.D.

THE SOUTHERN SURGEON

In February, the JOURNAL printed the rumor that the South would soon have a surgical publication of its own. At that time, except for the journals of the various State Associations and the highly esteemed *Southern Medical Journal*, there was hardly a medical magazine published in the South. Late in April our hopes were gratified with the appearance of *The Southern Surgeon*. The Journal of the Medical Association of Georgia takes a paternal interest in the new venture since it is edited by a man who has done much for this Journal, and for that same reason it takes the liberty of offering its readers the opinion of *The Mississippi Doctor*:

"*The Southern Surgeon* has made its appearance, Volume 1, Number 1, April, 1932. We want to express our appreciation to the editors for a copy of this journal. Its papers are of the highest type. The journal is well edited. It has large and clear print. It is readable. You may think that you are already taking more journals than you can read. Maybe you are taking more than you do read, but *The Southern Surgeon* is one that you will not likely want to do without. The name impresses you. . . . It is published quarterly and the price is very reasonable, three dollars per annum. When you read this journal you will have a feeling that it is coming to you as a personal friend. We predict that it is going to be a very popular journal. It will bring you technical knowledge and teach you how to use it. It will be a big factor in developing the Southern surgeon who has always had originality and who is resourceful. It has an open, free, and easy touch in expression and a brotherly interest speaking out between the lines."

The Southern Surgeon is published with the following Advisory Editorial Board:

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The editor is Dr. L. Minor Blackford; the managing editor, Dr. B. T. Beasley, both of Atlanta. The associate editors are Drs. Roy B. McKnight, of Charlotte; Gilbert F. Douglas, of Birmingham, and Augustus Street, of Vicksburg.

We offer to *The Southern Surgeon* our best wishes, and to its sponsors our most sincere congratulations on the first number. We would urge all of the surgeons in Georgia to support it with their subscription. —A. H. B.

The Experimental Production of Agranulocytosis, by Roy R. Kracke, in Am. J. Clin. Path. 2:11, January, 1932.

The Editorial Board has recently received no less than seven reprints from Doctor Kracke. Most of these deal with agranulocytosis, and they include a number of thorough and excellent case reports. While admiring the enormous amount of work that these represent, space forbids us to abstract all of them, particularly since so many of them are boiled down to the ultimate, and contain abstracts of a world of other material. The paper we have selected for discussion involves fundamental research, suggested by the thorough clinical studies reported elsewhere. The following conclusions were drawn:

1. Agranulocytosis is a clinical entity whose pathology is probably primary in the bone marrow, followed by sepsis which may be either local or general, or followed by no evidence of sepsis.

2. Subcutaneous injections of benzine and olive oil (if given in sufficiently small doses, so as not to affect the erythroblastic tissues) resulted in the development of clinical agranulocytosis in rabbits. The smaller the dose, the more selective became the affinity for the myelocytic tissues. The course of the condition seemed to be similar to that seen in the human; that is, first a neutropenia, then generalized infection from organisms already present, or from organisms introduced.

3. Agranulocytosis with subsequent infection and without infection was produced by the subcutaneous injection of benzine without olive oil, and also by the intraperitoneal injection of benzine.

4. Benzine inhalations failed to depress the leukocyte count.

5. The intravenous injection of benzine even in small doses resulted in the immediate death of the animal, so it is probable that oxidation products of benzine are directly responsible for its leukocyte depressing properties.

6. Agranulocytosis can be produced with benzine in a rabbit having a leukocytosis.

7. A marked leukopenia was produced by the subcutaneous injection of ortho-oxybenzoic acid and by the intravenous injection of hydro-quinine.

8. The injection of animals by the subcutaneous and intravenous routes and the oral administration of the following substances failed to depress the leukocyte

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GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. ABERCROMBIE, M.D., *Director*

PREVALENCE OF VENEREAL DISEASE

The May 27, 1932, issue of Public Health Reports carries a report: "Prevalence of Venereal Disease in New Orleans, La." This is a report of a one-day survey and is most interesting to all Southern physicians, as New Orleans is comparable to most of our Southland. A similar survey was made in ten of our cities. It is interesting to note that "New Orleans has comparably the lowest rate per 1,000 population for venereal disease under treatment and ranks fourth among the cities having a high percentage of persons under treatment in public clinics."

Space forbids a complete review of the paper; we reproduce the summary:

"In New Orleans a one-day census showed that 32 per cent of the physicians had one or more cases of venereal disease under treatment. There was practically an even distribution of cases reported in private practice and in public clinics or other institutions.

"There were reported 4,820 cases of syphilis and gonorrhea under treatment as of the survey date, February 2, 1931, of which 2,676 were syphilis and 2,144 gonorrhea. The rate was nearly twice as high among the colored population as among the white. The gonorrhea rate for colored females was found to be extremely low. The investigators have no reason to offer for this finding.

"There are 90 per cent of the private practice cases in the hands of 15 per cent of the physicians. It is thought, perhaps, that the adequate public clinic facilities for treatment of syphilis and gonorrhea are responsible for the fact that there is so much specialization in these diseases among the private practitioners. Although the concentration of these cases in the care of a few physicians greatly assists in the dissemination of the treatment data on venereal diseases, it is felt that here as in other communities many, if not most, of the early infections are seen first by the family physician, and he should be trained in the early recognition, if not specially in the treatment, of these diseases.

"The ratio of incidence to prevalence of syphilis is nearly twice as high for the males as for the females, whereas for gonorrhea it is similar for the two sexes.

"New Orleans was found to have a lower venereal disease prevalence rate than any of the other ten large cities in which a survey was conducted. However, in conjunction with the prevalence survey in New Orleans a study of the amount of treatment given by unauthorized medical sources was found to be very high. It was also found that at least one-half of the whites and 80 per cent of the colored attempted either self-treatment or were treated over the drug store counter before applying to a clinic for treatment. For these

reasons there is a question as to whether the apparently low prevalence rate in New Orleans is due entirely to the effectiveness of the control methods and the excellent free public clinic facilities or to other reasons. The authors do feel, however, that very complete returns were made from those cooperating in the study.

A STUDY OF THE WASSERMANN AND KAHN TESTS ON 30,000 SPECIMENS

In the latter part of 1927 the writer visited the laboratories of the Michigan Department of Health for the purpose of studying there with Doctor Kahn the precipitation test devised by him for detecting in blood sera evidence of syphilitic infection. We were very much impressed with this new and time-saving procedure, but at the same time we hesitated to discard the Wassermann test, as had been done by some public health institutions, until this new test in our own hands had been proved to be superior in a series of several thousand specimens.

Public health institutions are very often handicapped in research such as this, because after making different tests on a number of specimens there is lacking the clinical picture or history which would throw considerable light as to the superior procedure in cases of disagreement between the tests. Consequently we sought in this study the cooperation of a number of representative physicians from all sections of the State who were and had been submitting to our laboratory quite a number of specimens for the Wassermann test. Their expression of willingness to furnish us with clinical data in cases of disagreement between the two tests was very gratifying, so the study was begun.

The Wassermann procedure used was Kolmer's modification, two-tube method, which has been in use in our laboratory since 1926. We obtained from the Michigan Laboratories standardized Kahn antigen, so that our results would not be clouded with the possibility of having used an inferior product. The two tests were employed in detail as outlined by the respective authors without introduction of innovations.

In cases of disagreement between the two tests, the report was not released until both tests were repeated on such specimens in order to be doubly sure that the discrepancy in reaction was a difference in the tests and not attributable to error in performing either test. Then a questionnaire postal card relating to the history and clinical symptoms of patient

and the physician's diagnosis was attached to the report and forwarded to the physician.

The cooperation of the physicians in this study was splendid indeed, since they filled in and returned 93.4 per cent of the questionnaire cards. After these tests had been applied in parallel to 10,000 specimens, which was thought to be a representative number to bring out the comparative value of the methods, the physicians replied unanimously to a questionnaire relative to their general impression of the merits of the two tests in their practice.

Classifying our results by the generally accepted method in which four, three, and two plus reactions are recorded as positive, one plus and plus minus as doubtful, we found the following:

<i>Complete Agreement—</i>	
Positive, doubtful, or negative by both tests.....	94.2%
<i>Relative Agreement—</i>	
Positive or negative by one and doubtful by the other	3.4%
<i>Disagreement—</i>	
Positive by one and negative by the other.....	2.4%

We found a combined complete and relative agreement of 97.6 per cent. The greatest number of discrepancies in reaction occurred in cases of treated syphilis in which the Kahn test was usually the more sensitive. In fifty-eight cases, or 25 per cent, of the disagreements the Kahn was four plus—Wassermann negative, whereas in eighteen cases, or 8 per cent, the Wassermann was four plus and the Kahn negative.

Clinical diagnoses as revealed by the questionnaire cards seemed to point to the positive results in these cases of disagreement. A majority of the physicians, in response to our query relative to their preference of the two tests as experienced by them in this study, preferred the Kahn test and 80 per cent of them considered that the employment of both tests would be of considerable value to them.

Our limitations of personnel precluded the employment of both tests on all specimens. We still hesitated to discard the Wassermann test, even though it was not quite as sensitive as the Kahn, since it was found to be picking up positive reactions in some cases diagnosed as syphilis in which the Kahn was negative. The present general policy of continuing the Wassermann test as the official test and performing the Kahn test in addition upon the request of the physicians, was adopted.

Since then we have continued to keep record of the agreement between the two tests until the total now reaches about 30,000 specimens, including the 10,000 in the original study. A tabulation shows the following results:

<i>Complete Agreement—</i>	
Positive, doubtful, or negative by both tests ..	94.35%
<i>Relative Agreement—</i>	
Positive or negative by one and doubtful by the other	3.0 %
<i>Disagreement—</i>	
Positive by one and negative by the other.....	2.65%

We find that there is but 0.25 per cent difference in the disagreement between the two tests in this tabulation and the one representing 10,000 specimens. It might be well to mention also that the tabulation month by month shows the check between the two tests remains quite constant. We may, therefore, conclude that any deductions made from the original study is also applicable to the larger number of specimens.

There is no doubt that the Kahn test picks up positive reactions in some cases of syphilis which are missed by the Wassermann, and usually continues to show positive reactions in cases under treatment after the Wassermann has become negative. Yet, on the other hand, with some cases, though fewer in number, the reverse is true. We do not believe that definite positive reactions by either of the tests mentioned above are pseudo reactions.

There has not as yet been devised a serological test which will pick up all cases of syphilis and in the opinion of some there never will be. However, the employment of two tests of different type, preferably one a complement-fixation procedure and the other a precipitation test, will pick up more cases of syphilis than either test alone.

Both of the tests referred to above depend entirely on their ability to detect in the blood serum syphilitic "reagin". Although this content has been proved to be variable from time to time, even in untreated cases of syphilis, and, although the reaction in both tests is supposed to depend entirely on the presence of this same "reagin", it is interesting to note that there will be disagreements in reaction on the same specimen.

While either of these tests by itself may sometimes show negative reactions in known positive cases, it is interesting to further note that in only a very small percentage of cases undoubtedly syphilitic will both tests show negative reactions on the same specimen. This demonstrates from the clinical point of view the advisability of employing more than one kind of procedure.

Then, too, from the laboratory viewpoint it is not advisable to rely on one test alone. Reagents sometimes have a habit of getting "off color", so to speak. If only one test is employed, this may continue for some time before detected, whereas if two different types

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GEORGIA STATE NURSES ASSOCIATION

Officers

President—Miss Alice F. Stewart, R. N., Augusta.
First Vice-President—Miss Dora A. Kershner, R. N., Macon.

Second Vice-President—Miss Lillian Cumbee, R. N., Emory University.

Secretary—Miss Florence Pund, R. N., Augusta.

Treasurer—Miss Jane Van De Vrede, R. N., Atlanta.

Miss Jane Van De Vrede, R. N.

Executive Secretary

District Presidents

First—Mrs. Dorothy Treacle, R. N., Savannah.

Second—Mrs. B. Y. Vann, R. N., Thomasville.

Fourth—Miss Lucia Massee, R. N., Cuthbert.

Fifth—Mrs. Sue B. Paille, R. N., Atlanta.

Sixth—Mrs. Sarah P. English, R. N., Sandersville.

Seventh—Miss Shirley Hamrick, R. N., Cedartown.

Eighth—Miss Lynda Bray, R. N., Athens.

Ninth—Miss Ruby Falls, R. N., Gainesville.

Tenth—Mrs. Olive Barbin, R. N., Augusta.

Headquarters

131 Forrest Avenue, N. E., Atlanta.

NURSES TAKE LEAD FOR LOWERED SERVICE COSTS

Trite old sayings frequently come to mind to illustrate truths, and perhaps none more aptly apply to the present situation in nursing than that "Necessity is the mother of invention".

Necessity has resulted in the thinking through of many problems, and truths have been borne in on nurses and those who have to do with nursing service, during this period of depression, that probably would not have come to the fore during "normal times".

There are great numbers of nurses unemployed; yet strangely enough training schools have continued to turn out graduates with a regularity that has become alarming. Long hours have prevailed under our archaic system of nursing in spite of the fact that research studies have revealed that skilled nursing service required for the average adult patient is only five hours, and for the child seven hours, out of the twenty-four.

These long hours have not only defeated employment of a maximum number of nurses, but have actually been to the patient's detriment, in that nurses serving for from twelve to twenty, and in some instances twenty-four, hours are unable to render as good service as is possible where shorter hours prevail.

Then, it is known that under our present system nurses are breaking down in health much earlier in life and with greater regularity than persons in almost any other profession or vocation.

In the absence of the physician, the nurse stands guard over the welfare of the patient, and because of this shares a professional responsibility which should be recognized. She widens professional opportunities of the physician while she narrows her own. Her physical and mental energy is expended in almost a profligate manner in serving both the patient's and the physician's best interests.

Common sense brings but one deduction—shorter hours for the students and the graduate nurse; and an eight-hour day is now engaging the attention of the medical and nursing professions and of hospital people.

In the case of the graduate, the eight-hour day will mean employment of an additional nurse every twenty-four hours, where critically and seriously ill patients need constant nursing care.

The change from twelve (or twenty-two) to eight-hour service is being favored by numbers of physicians because it means better service for the patient at little or no increased cost—at least in this state—since the nurse herself proposes to make the financial sacrifice involved in the adjustment.

The average nursing rate in Georgia is \$6 per day, or 50 cents an hour on the basis of a twelve-hour day. No increase in the hourly rate will be made when the eight-hour day goes into effect. Thus it will be seen that the nurse is actually helping to reduce rather than increase the cost of nursing service to the patient, the average of which will not require twelve or twenty hours' service.

The eight-hour day is not a new note in nursing, though it has been slow of adoption on a country-wide basis, due, doubtless, to the lack of adherents who have had opportunity to study the plan. Nursing regulations, hours and rates have been influenced and practically controlled by the medical and hospital groups. It has been difficult for the nurse, serving individually and on long hours, to assist in bringing about a rearrangement of her service, and she has been very slow in following the general trend, which is for an even shorter day than eight hours.

The eight-hour shift was first introduced in 1891 in the Farrand School of the Harper Hospital, Detroit, Mich. A little later it was inaugurated in other hospitals and schools over the country. Three hospitals in Cleveland, Ohio, namely, Lakeside, Mount Sinai,

and Huron Road, experimented with a ten-hour day for special nurses in 1924; and at the end of the experimental period it was found practically all of the hospitals of the city had followed the plan, with little unfavorable criticism from doctors or patients; while the nurses were much happier and more contented.

Among the schools adopting the eight-hour day about this time was the Hotel Dieu, New Orleans. According to an article by Miss Helen R. Wilson, R. N., in the *American Journal of Nursing* for August, 1929, the benefits were numerous. Miss Wilson outlined the schedule of hours "in the hope that other hospitals will adopt this much-needed arrangement of duty hours which affords relaxation and rest for the nurse. We have found that the nurse on the eight-hour shift returns to duty with more vigor and energy and consequently more interest in her patients; hence we see that this regulation is as beneficial to the patients as to the nurses".

The Presbyterian Hospital School of Nursing, New York, has for many years operated an eight-hour schedule. The Army School of Nursing, organized during the World War and continued until last year, operated on an eight-hour schedule; and Government nursing services are rendered on an eight-hour basis.

An eight-hour day for special nurses was established at the Hospital of the Good Samaritan, Los Angeles, Calif., June 1, 1929, with the full approval of the medical staff. According to excerpts from an article by Miss Gertrude L. Spanner, in the *Pacific Coast Journal of Nursing* for September, 1929, no meals for nurses are paid for by the patient under the eight-hour plan, a schedule being arranged to make this unnecessary (a cafeteria where special nurses may purchase a meal or refreshment during meal hours has been provided). "An eight-hour day is in force for all of the members of the nursing staff, including nurses on general duty. Since attendants have been employed on the floors to do unskilled work, the graduate and student staff is able to give undivided attention to the many details of nursing. We feel it has been a great step forward."

The National Committee on the Distribution of Nursing Service, in making up tentative standards, early in 1931, recommended fifty hours per week as the maximum general staff nurses should render. This allows for an eight-hour day and a whole day off at regular intervals.

Thus it will be seen that the seven-hour day for nurses is no innovation; nor may it be considered even an experiment at this time. On the contrary, it can safely be said that

eight-hour nursing service can be carried out without materially increasing costs. Nurses, physicians, and hospitals endorsing the eight-hour day feel that it is a sane and reasonable arrangement which should be adopted at the earliest possible time.

COMMUNICATION

Cults and Their Deception

Dr. L. S. Osborne, Secretary,
Ben Hill County Medical Society,
Fitzgerald, Ga.

Dear Doctor Osborne:

In re: *A. J. Biddle*

Dr. Allen H. Bunce has referred to me your letter of June 10th relative to one A. J. Biddle, who was going to give a series of alleged lectures to women only on feminine hygiene, and, I take it from the additional material that Doctor Bunce sent, was also going to do a little business on the side in the sale of a contraceptive called "Wep Vaginal Ointment".

We have no record at all of A. J. Biddle and it seems likely that this person is new to the scheme that he was about to work. I might say, incidentally, that it is a popular and profitable "racket" at the present time among those individuals who live by their wits and who are able to put up a certain amount of front and have the gift of gab.

We do have a record of the Wep Vaginal Ointment, put out by the Wep Chemical Company. It seems from what we have on file that the Wep Chemical Company is the successor to Pentz & Company of St. Joseph, Mo. The Pentz people put out a so-called perspiration powder under the name "Wep". Presumably, when they decided to go into the contraceptive field, they changed the name of the company.

In the latter part of 1930, the Wep Chemical Company submitted an advertisement of the Wep Vaginal Ointment and the applicator to the *Hiauwatha* (Kansas) *Daily World*. Apparently, that paper had some doubts as to whether it was legal to advertise such a product and wrote to the Wep Chemical Company on that point. The company replied that the preparation was sold "for the treatment of the many ailments of women and as a general hygienic measure". This, of course, was wholly disingenuous. If the preparation is sold for the treatment of pathologic conditions of the vaginal tract, there is no legitimate excuse for its sale direct to the public, for diseases of that type are quite obviously too serious to be self-treated. Undoubtedly, however, the stuff is sold for and used for the prevention of conception. The alleged composition is in itself an indication of that fact. The use of lactic acid, chinosol, phenol, sulphate of zinc, and other drugs is common to the manufacture of contraceptives.

In 1930 the Wep Chemical Company was, apparently, advertising its product, with the applicator, to physicians, charging physicians \$2.75 for a set and stating that the price the physician should charge the patient was \$5. In that advertising, it was being sold as a

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WOMAN'S AUXILIARY

OFFICERS

President—Mrs. S. T. R. Revell, Louisville.
 President-Elect—Mrs. J. Bonar White, Atlanta.
 First Vice-President—Mrs. N. Peterson, Tifton.
 Second Vice-President—Mrs. C. Thompson, Millen.
 Third Vice-President—Mrs. J. W. Simmons,
 Brunswick.

Recording Secretary—Mrs. J. E. Penland, Waycross.
 Corresponding Secretary—Mrs. F. B. Rawlings,
 Sandersville.
 Treasurer—Mrs. Chas. Usher, Savannah.
 Parliamentarian—Mrs. Charles Hinton, Macon.
 Editor—Mrs. C. W. Roberts, Atlanta.

MINUTES OF DELEGATES' MEETING AND EXECUTIVE BOARD

The eighth annual session of the Delegates and Executive Board of the Woman's Auxiliary to the Medical Association of Georgia was called to order by the President, Mrs. Ralston Lattimore, of Savannah, Wednesday morning, May 18, 1932, at the DeSoto Hotel, Savannah.

The invocation was given by Rev. C. C. J. Carpenter, Rector of St. John's Episcopal Church.

Mrs. S. T. R. Revell, of Louisville, President-Elect, introduced Mrs. John Judson Pilcher, of Wrens, who presented a gavel to the Auxiliary. This gavel, an emblem of bygone days in Louisville, was made from a limb of the Constitutional tree and presented to the Auxiliary from the Jefferson County Auxiliary. Mrs. Lattimore received it with thanks.

Mrs. William Shearouse, President of the Savannah Auxiliary, extended cordial greetings.

Mrs. Lattimore introduced Mrs. Walter Jackson Freeman, of Philadelphia, President of the Woman's Auxiliary to the American Medical Association. Mrs. Freeman gave a most inspiring talk on the work of the A.M.A. and of the various meetings she has attended. She complimented the Auxiliary on the year's work. The following guests were also introduced by Mrs. Lattimore:

Miss Pearl Fort, of Atlanta, daughter of the President of the Medical Association of Georgia.

Mrs. Bonar White, of Atlanta, First Vice-President of the Woman's Auxiliary and Recording Secretary of the S. M. A.

The following Past Presidents of the Auxiliary were asked to come to the front:

Mrs. James N. Brawner, of Atlanta; Mrs. W. H. Meyers, of Savannah; Mrs. C. W. Roberts, of Atlanta, and Mrs. Marion Benson, of Atlanta. The Auxiliary regretted that the other Past Presidents were unable to attend the session.

In a gracious manner Mrs. R. V. Martin, of Savannah, Chairman of the Entertainment Committee, outlined the plans for a most

delightful program of entertainment for the guests.

The minutes of the seventh annual meeting of the Delegates and Executive Board in Atlanta, May 13, 1931, were read and approved. The following District and County reports were read:

First—Mrs. L. F. Lanier, Sylvania

Second—Mrs. Nichols Peterson, of Tifton
 (read by Mrs. Revell)

Fifth—Mrs. Dan Y. Sage, Atlanta

Sixth—Mrs. Wallace Bazemore, Macon

Ninth—Mrs. C. L. Ayers, Toccoa

Tenth—Mrs. Dillard, President, absent.

Report read by Secretary

Counties

Bibb County—Mrs. Charles Richardson

Bulloch-Candler-Evans Counties—

Mrs. J. A. Mooney

Chatham County, Savannah—

Mrs. E. M. Baker

Fulton County—Mrs. Barber

Elbert County—Mrs. D. N. Thompson

Cherokee and Pickens Counties—

Mrs. D. H. Garrison

Gainesville report filed but not read; no one present from Auxiliary.

Stephens County—Mrs. C. L. Ayers

Jefferson County—Mrs. J. R. Lewis

Richmond County—Mrs. G. T. Bernard

Washington County—Mrs. E. S. Peacock

Glynn County—Mrs. J. W. Simmons

Ware County—Mrs. K. McCullough

Mrs. Lattimore announced that a meeting of the Executive Board would be held Tuesday evening at 8:00 o'clock. A nominating Committee composed of seven members, three from the Executive Board and four from the members at large, was elected. An Auditing Committee composed of three members was elected and a chairman from the Board was elected to bring this report to the body. Mrs. Bonar White, Chairman reported the election of the following committees:

Nominating Committee

Mrs. D. N. Thompson, Elberton, Chairman

Mrs. Dan Y. Sage, Atlanta

Mrs. J. A. Selden, Macon

From the Executive Board.

Mrs. C. W. Roberts, Atlanta
 Mrs. Wallace Bazemore, Macon
 Mrs. Lee Howard, Savannah
 Mrs. W. H. Meyers, Savannah
 From the Members at large.

Auditing Committee

Mrs. Marion Pruitt, Atlanta, Chairman
 Mrs. Bonar White, Atlanta
 Mrs. Charles Richardson, Macon

The Courtesy Resolutions Committee, composed of the following, was appointed by Mrs. Lattimore:

Mrs. J. A. Selden, Macon, Chairman
 Mrs. Geo. Fuller, Atlanta
 Mrs. E. S. Peacock, Washington
 Mrs. D. H. Garrison, Tate
 Mrs. John R. Lewis, Louisville

Dr. Arthur G. Fort, President of the Medical Association of Georgia, was introduced by Mrs. Lattimore. He brought greetings to the Auxiliary from the Association and complimented the Auxiliary on the cooperation given the Association in health work. Mrs. Lattimore, Mrs. Selden, Mrs. Revell, and Mrs. Bonar White expressed the thanks of the Auxiliary to Doctor Fort for his message and for his wonderful support during the year.

Mrs. John Daniel, Chairman of the Credentials Committee report that 116 members registered on the 17th and the morning of the 18th. Others were registered on the afternoon of the 18th and 19th.

Report, accepted with thanks.

Mrs. Bonar White, Delegate to S. M. A. Auxiliary in New Orleans, gave an account of the Association meeting and of the work of the Auxiliary.

Mrs. Selden moved that the Corresponding Secretary be instructed to send a telegram to Mrs. Allen H. Bunce expressing regrets of the body at her illness and absence. Motion carried.

Mrs. Freeman asked for a meeting of the State and County Secretaries and Treasurers. Session adjourned.

MRS. J. E. PENLAND, Waycross,
Recording Secretary.

EIGHTH ANNUAL SESSION

Savannah Meeting

The Eighth Annual Session was called to order at 10:40 a.m., Thursday, May 19th, by the President, Mrs. Ralston Lattimore. The Lord's Prayer was repeated in concert. Address of Welcome, by Mrs. Julia Quattlebaum, of Savannah. Response to Address of Welcome, by Mrs. Dan Y. Sage, of Atlanta.

Dr. M. M. Head, President-Elect of the Medical Association of Georgia, was introduced by Mrs. Lattimore. He very graciously expressed his appreciation

of the work being done by the Auxiliary and pledged his support. He announced that the following committee had been appointed to assist the Auxiliary in any way necessary: Dr. B. H. Minchew, Waycross; Dr. S. T. R. Revell, Louisville; Dr. A. G. Fort, Atlanta.

Mrs. Lattimore introduced Doctor Minchew, who urged the body to continue the splendid health work done this year. He emphasized the importance of public health work and education and stressed the necessity of close relationship and fellowship between the Association and Auxiliary. Doctor Minchew announced that the Auxiliary's health program, under the Chairmanship of Mrs. Bonar White, was attracting so much attention that the Savannah press wished to print it as a feature article.

A vote of thanks was given Doctor Head and Doctor Minchew.

Mrs. W. H. Myers presented a basket of flowers sent to the Auxiliary from the First District Nurses' Association. The Corresponding Secretary was asked to write a note of thanks.

Mrs. McGee, of Savannah, was introduced and thanked for her splendid work in organizing local tuberculosis units.

Mrs. Bonar White, First Vice-President, took the chair while Mrs. Lattimore, President, made her annual report. The report was accepted with a rising vote of thanks. Two lovely corsages were presented to Mrs. Lattimore as tokens of appreciation for her untiring services and of the love by her friends. One was presented by Mrs. R. V. Martin from the Chatham County Auxiliary and the other by Mrs. Bonar White from the State Auxiliary.

The minutes of the annual session in Atlanta, May 14, 1931, were read and approved with corrections.

Mrs. Benjamin Bashinski, Treasurer, gave her annual report. Mrs. Marion Pruitt, Chairman of the Auditing Committee, reported that the Treasurer's books were correct.

Mrs. William R. Dancy, Corresponding Secretary, reported that she had written and mailed 180 letters and pamphlets.

A story of the Jane Todd Crawford Memorial was read by Mrs. W. H. Myers, of Savannah.

The following reports of officers and chairmen were accepted:

1. Report by Mrs. S. T. R. Revell, President-Elect and Chairman of Organization.
2. Report of Mrs. Bonar White, First Vice-President and Chairman of Health Education.

Mrs. Lattimore read a letter by Doctor Abercrombie expressing appreciation for the remarkable health work accomplished under the capable chairmanship of Mrs. White. At the suggestion of Mrs. Brawner the body stood in tribute to the work of Mrs. White.

3. Report of the Credentials Committee by Mrs. John Daniel, Chairman, showed 116 registered to the 18th.

4. Report by Mrs. D. N. Thompson, Third Vice-President and Chairman of Scrap Book.

5. Committee on Public Policy and Legislation by Mrs. Julian Quattlebaum, Savannah, Chairman.

6. Student's Educational Loan Fund by Mrs. William Shearouse, Savannah, Chairman.

7. Report of Treasurer of Loan Fund by Mrs. Lee Howard, Savannah.

8. Report of Health Film Library by Mrs. J. A. Selden, Chairman.

9. Courtesy resolutions, Mrs. J. A. Selden, Chairman. These resolutions were compiled in a clever manner and thanked the local Auxiliary, city, press, hotels, and all who assisted in making this one of the outstanding meetings of the Auxiliary.

An interesting health film, "Confessions of a Cold", was shown at this time through the courtesy of the local P.-T. A. and the Health Film Committee.

Mrs. Quattlebaum moved that the body endorse the Department of Public Health and the Department of Public Welfare by writing to Judge Shepard Bryan and that they recommend that a trained person be in charge of these departments. Motion carried.

Recommendations by Mrs. Revell were adopted in the following form:

1. That each county president who has not done so fill out the questionnaire sent her recently and return immediately.

2. That each county president keep a carbon copy of same with answers and give it to her successor. This shall be used as a guide for new presidents.

3. (*Request*—not a motion): That all officers—county, state, and district—shall keep accurate records of work and turn them over to their successors.

4. A committee be appointed to revise State Constitution and By-Laws.

The Nominating Committee, by Mrs. D. N. Thompson, Chairman, made the following report:

President—Mrs. S. T. R. Revell, Louisville.

President-Elect—Mrs. Bonar White, Atlanta.

First Vice-President—Mrs. Nichols Peterson, Tifton.

Second Vice-President—Mrs. Cleveland Thompson, Millen.

Third Vice-President—Mrs. J. W. Simmons, Brunswick.

Recording Secretary—Mrs. J. E. Penland, Waycross.

Corresponding Secretary—Mrs. Fred Rawlings, Sandersville.

Treasurer—Mrs. Charles Usher, Savannah.

Parliamentarian—Mrs. C. C. Hinton, Macon.

Editor—Mrs. C. W. Roberts, Atlanta.

Delegates to A. M. A. Auxiliary—Mrs. W. H. Myers, Mrs. C. W. Roberts, Mrs. Wallace Bazemore, Mrs. L. F. Lanier.

Delegates to S. M. A. Auxiliary—Mrs. Ralston Lattimore, Mrs. J. E. Penland, Mrs. Charles Richardson, Mrs. W. R. Dancy.

The nominations were closed and the Secretary was instructed to cast the ballot for the nominees.

Mrs. Lattimore escorted Mrs. Revell to the chair and presented her with the gavel. Mrs. Revell made a gracious speech of acceptance and presented her Executive Board to the body.

Three corsages were presented to Mrs. Revell, one

from the Chatham County Auxiliary, by Mrs. Hugo Johnson; one by Mrs. Pilcher in behalf of the Jefferson County Auxiliary, and one from the Louisville P.-T. A. by Mrs. John Lewis. Mrs. Dan Y. Sage moved that the body give Mrs. Lattimore a rising vote of thanks for her interest and work. Carried. Adjourned.

MRS. J. E. PENLAND,

Recording Secretary.

NEWS ITEMS

Dr. R. H. Oppenheimer, Dean of Emory University School of Medicine, announces that surgical clinics are being held in the operating room of the Emory Division of Grady Hospital, Atlanta, every Saturday from 9:00 to 12:00 a.m. The clinics consist of surgical operations, demonstration of patients, and pathological specimens.

The American Board for Ophthalmic Examinations will hold examinations at Montreal, Canada, on Monday, September 19th. This is the date for the meeting of the American Academy of Ophthalmology and Otolaryngology.

Dr. C. L. Ridley, Macon, was elected Chairman of the Advisory Committee to the Georgia Department of Public Health at a meeting held on June 14th. Other physicians on the committee are: Dr. J. A. Redfearn, Albany; Dr. H. L. Erwin, Dalton; Dr. William H. Myers, Savannah; Dr. Marvin M. Head, Zebulon, President of the Association.

The Clinical Society of the Piedmont Hospital, Atlanta, met in the dining-room of the hospital on June 13th. Dr. W. F. Shallenberger and Dr. Carter Smith, Atlanta, gave a case report, "Acute Nephritis-Uremia"; Dr. James E. Paullin, Atlanta, "Carcinoma of Lungs—Case Report".

The American Congress of Physical Therapy will hold its Eleventh Annual Session at the Hotel New Yorker, New York City, September 5-10.

Dr. Ford Ware, formerly of Mooresville, N. C., announces the removal of his office to his former home, Americus. He practiced medicine in Cordele and Americus for many years before going to North Carolina.

R. B. Davis Company, Hoboken, N. J., announces the acceptance of Cocomalt and the claims made for it by the Committee on Foods of the American Medical Association. Also that it is the only food drink licensed by the Wisconsin Alumni Research Foundation under Steenbock Patent No. 1,680,818.

Dr. Henry W. Clements, Adel, entertained the physicians of Berrien, Cook, and Lowndes counties at a barbecue on June 14th. There was no set program, but a number of subjects of vital interest to the profession were discussed.

J. N. Kalish, Inc., has opened a new optical store at 385 Peachtree Street, N.E., Atlanta, with complete facilities for filling oculists' prescriptions. For the past

six years Mr. Kalish has handled nothing but oculists' prescriptions and repair work for one of Atlanta's leading optical stores. Personal attention to each individual insures satisfaction.

The New York Polyclinic Medical School and Hospital, 341-353 West Fiftieth Street, New York City, has enlarged its department for "Hay Fever Clinics" due to the increased demand of people sensitive to hay fever pollens and allied diseases. Clinics are held every morning from 9:30 to 11:00 o'clock.

Dr. Murdock Equen, Atlanta, was elected to Fellowship in the American Bronchoscopic Society at its meeting recently held in Atlantic City.

The Georgia Medical Society met at its hall in Savannah on June 14th. Dr. John L. Elliott, Savannah, read a paper entitled "Hyperemesis Gravidarum"; Dr. E. N. Gleaton, Savannah, gave a case report, "Chronic Lead Poisoning, with Laboratory Reports"; Dr. William Shearouse, Savannah, case report, "Transurethral Prostatectomy by Davis Bovie Unit".

The Walker County Medical Society met at Ross-ville on May 27th. Dr. J. H. Hammond, LaFayette, spoke on "The Duties of the Medical Profession"; Dr. G. V. Williams, Chattanooga, read a paper on "Syphilis".

The Fulton County Medical Society met at the Academy of Medicine, Atlanta, on June 16th. Dr. T. S. Burgess, Atlanta, gave a case report, "Conservative Management of Acute Sinusitis in a Four-Year-Old Child"; Dr. W. W. Young, Atlanta, case report, "Pseudopsychotic Reaction with Hypothyroidism"; Dr. Hayward S. Phillips, Atlanta, gave a clinical talk on "Sacrococcygeal Teratomata—Case Report"; Drs. Ballenger, Elder, and McDonald, Atlanta, a paper entitled "The Symptoms and Diagnosis of Affections of the Deep Urethra and Neck of the Bladder". Discussions were lead by Dr. S. T. Brown, Dr. Earl Floyd, and Dr. W. A. Upchurch, all of Atlanta.

The Ocmulgee Medical Society met at Hawkinsville on June 17th. Dr. Wallace Bazemore, Macon, read a paper entitled "Results Obtained in Transurethral Prostatic Resection" Illustrated by Motion Pictures; Dr. C. H. Richardson, Macon, spoke on the "Acute Abdomen".

The Williams and Wilkins Company, Baltimore, Md., announce the purchase of the inventory assets of the William Wood & Company, medical publishers of New York City.

The Chattahoochee Valley Medical and Surgical Association held its annual session at Radium Springs, Albany, on July 12-13. Subjects of papers read by Georgia physicians were as follows: "The Diagnosis and Treatment of Trifacial Neuralgia," Dr. Edgar F. Fincher, Jr., Atlanta; "Tracheotomy," Dr. I. W. Irvin, Albany; "Recurrent Peptic Ulcer," Dr. B. T. Wise and Dr. R. C. Pendergrass, Albany; "Obstetrics in General Practice," Dr. Bruce Threatte, Columbus; "Some of the Hazards of the First Year of Life,"

Dr. Charles E. Boynton, Atlanta; "Carcinoma of Colon," Dr. Lon Grove, Atlanta; "A Review of Fourteen Hundred Cystoscopic Examinations," Dr. Stephen T. Brown, Atlanta; "Thyroiditis," Dr. Chas. E. Waits, Atlanta; "Recent Advances in Our Knowledge of the Anterior Pituitary," Dr. G. Lombard Kelly, Augusta; "Fistula," Dr. Marion C. Pruitt, Atlanta; "Some Aspects of the Goiter Problem," Dr. Chas. H. Richardson, Macon; "A Statistical Study of Two Thousand Consecutive Tissue Examinations in a Private Laboratory," Dr. Geo. F. Klugh, Atlanta. Dr. Seale Harris, Birmingham, Ala., was elected President; Dr. R. C. Pendergrass, Americus, First Vice-President.

The American Nurses' Association, 450 Seventh Avenue, New York City, in a recent news release, asks the aid of hospital trustees throughout the United States to stem the tide in the increasing stream of nursing school graduates. The appeal is sent out by the American Nurses' Association, the National League of Nursing Education, the National Organization for Public Health Nursing, and the Chairman of the Committee on Distribution of Nursing Service of the American Nurses' Association. Five ways are suggested in which the hospitals may balance the extra cost involved by employing larger numbers of graduate nurses. If interested, write to the American Nurses' Association.

The Randolph County Medical Society met at Cuthbert on July 7th. Dr. Clarence Bennett, Eufaula, Ala., exhibited pathological specimens and spoke on "Aortitis and Aortic Insufficiency". Members of the society gave case reports.

Dr. Murdock Equen, Medical Arts Building, Atlanta, announces the association of Dr. Stacy C. Howell in the practice of otology, laryngology, and rhinology.

The Thomas County Medical Society met at Thomasville on June 22nd. Dr. S. E. Sanchez, Barwick, read a paper entitled "Anemia in Pregnancy"; Dr. Chas. H. Watt, Thomasville, "Acute Osteomyelitis."

The Aid Association of the Philadelphia County Medical Society (Philadelphia, Pa.), is establishing a special fund in honor of Dr. John B. Deaver, only the income of which will be used to assist needy doctors and their families. All friends of Doctor Deaver are invited to contribute.

The National Society for the Prevention of Blindness, 450 Seventh Avenue, New York City, states in its July 1st news release that each year between 750 and 1,000 children suffer accidental eye injuries in the United States as a result of accidents, chiefly through the use of fireworks, air rifles, and other weapons. Also that 500 children lose their sight in a similar manner.

The American Public Health Association, 450 Seventh Avenue, New York City, announces that the first Institute on Health Education will be conducted by the Public Health Education Section at the Hotel Willard, Washington, D. C., October 22-23-24, 1932.

The Fulton County Medical Society met at the Academy of Medicine, Atlanta, on July 7th. Dr. Homer Blincoe and Dr. Mason I. Lowance, both of Atlanta, exhibited a specimen of "Double Arch of Aorta"; Dr. Lon W. Grove, Atlanta, case report, "Gastric Resection for Recurrent Perforating Ulcer"; Dr. Rufus T. Dorsey, Atlanta, case report, "Obscure Liver"; Dr. Arthur G. Fort, Atlanta, clinical talk, "After-Treatment of the Simple Mastoid Operation"; Dr. James F. Hanson and Dr. Abner W. Calhoun, both of Atlanta, read a paper entitled "The Treatment of Lobar Pneumonia with Carbon Dioxide and Oxygen". Discussions were led by Dr. James E. Paullin, Dr. Russell H. Oppenheimer, and Dr. L. Minor Blackford, all of Atlanta.

The Sixth District Medical Society held its summer meeting at Hotel Elder, Indian Springs, on June 29th. Titles of papers on scientific program were as follows: "Medical Shock," Dr. Fred L. Webb, Macon; "Osteomyelitis," Dr. John I. Hall, Macon; "Peroral Endoscopy in Relation to General Medicine," Dr. B. McH. Cline, Atlanta; "Transurethral Resection of the Prostate," Dr. Ernest Corn, Macon; "Incidence of Blood Pressure in Five Hundred Physical Examinations," Dr. Robert L. Carter, Thomaston; "The Need of a Uniform Health Program," Dr. W. K. Stewart, Macon; "The Postoperative Patient," Dr. O. H. Weaver, Macon. Addresses by Dr. Marvin M. Head, Zebulon, President of the Association; Dr. Chas. H. Richardson, Macon, President-Elect of the Association; Dr. K. S. Hunt, Griffin, Councillor for the Sixth District.

Dr. E. W. Adair, East Point, First Lieutenant in the Reserve Corps of the U. S. A., has been assigned to the Tenth Medical Regiment; Dr. L. J. Rabham, Savannah, First Lieutenant in the Reserve Corps, has been assigned to Fort Oglethorpe Corps Area Service Command; Dr. H. M. Tolleson, Hahira, First Lieutenant, has been assigned to the medical unit of 223rd General Hospital.

Memorial services for Dr. Robert E. Stone, Atlanta, were held at the St. Luke Methodist Church, Atlanta, on Sunday, June 26th. Doctor Stone died on October 18, 1931.

The Chattahoochee Valley Free Medical Clinic, West Point, was formally opened on July 3rd. Dr. Hugh McCulloh, Sr., West Point, was elected President. The Clinic will be operated solely for the benefit of people who are unable to pay for medical treatment.

Dr. P. H. Askew, Dr. W. J. Dickson, Dr. P. A. Shuman, and Dr. J. V. Talley, all of Nashville, have organized a Collection Agency. The indigent sick will be given medical care gratis; however, the agency will insist on payment of all medical accounts by others.

COMMUNICATION

CULTS AND THEIR DECEPTION

(Continued from Page 295)

"preventive of venereal disease and a reliable treatment of gonorrhea in women". It was also said to

give "to relaxed vaginal walls a youthful vigor and function".

May I congratulate the Ben Hill County Medical Society for its action in the Biddle matter? If county societies all over the country were as wide awake to the interests of the public, it would put a decided crimp in a number of fakes that are being worked.

ARTHUR J. CRAMP, M.D., *Director,*
Bureau of Investigation, American Medical Assn.
Chicago, Ill., June 16, 1932.

THE PHYSICAL EXAMINATION AS AN INSTRUMENT OF RESEARCH

(Continued from Page 289)

whether the individual is or is not exposed to a given hazard under investigation, or the degree of his exposure.

6. A thorough history is necessary, because the examination itself gives only a cross-section survey.

7. The presence of acute conditions at the time of the examination must be allowed for.

8. A minimum time should be set for each examination.—United States Public Health Service.

THE EXPERIMENTAL PRODUCTION OF AGRANULOCYTOSIS

(Continued from Page 291)

count: amidopyrine, phenacetine, peralga, dial, resorcinol, pyrocatechin orthocresol, metacresol, paracresol, phenol, paraoxybenzoic acid, metaoxybenzoic acid, 50 per cent alcohol.

9. Skin application and subcutaneous injection of the following substances failed to depress the leukocyte count: benzine cleaner, aniline, paranitraniline, para red dye, beta-naphthol.

10. The daily intravenous injection of various organisms isolated from the blood stream of patients with agranulocytosis failed to depress the leukocyte count.

11. The etiology of agranulocytosis is unknown, but the benzine ring must be strongly considered.

12. Those who have the opportunity to study this disease should direct their attention to a careful history of possible contact with granulopenic producing substances, bearing in mind that when the patient consults the physician, he presents the terminal stage of a disease that possibly began months before.

BOOKS RECEIVED

Diseases of the Coronary Arteries (Myocarditis), by Don C. Sutton, M.S., M.D., Associate Professor of Medicine, Northwestern University; Attending Physician, Cook County Hospital; Chief of Cardiac Follow-Up Clinic, Cook County Hospital, Chicago, and Harold Lueth, Ph.D., M.D., formerly Instructor of Physiology, Northwestern University, Chicago. Contains 164 pages with illustrations. Publishers: The C. V. Mosby Company, 3523-25 Pine Boulevard, St. Louis, Mo. Price \$5.00.

MEDICAL CLINICS OF NORTH AMERICA

(Philadelphia Number—July, 1932)

Medical Clinics of North America. Issued serially, one number every other month. Volume 16, Number 1 (Philadelphia Number—July, 1932). Octavo of 290 pages with seventy-five illustrations. Per Clinic year, July, 1932, to May, 1933. Paper, \$12; cloth, \$16 net. Philadelphia and London: W. B. Saunders Company, 1932.

A STUDY OF THE WASSERMANN AND KAHN TESTS ON 30,000 SPECIMENS

(Continued from Page 293)

of tests are used, an unusual discrepancy between the two may be regarded as a signal for a check-up on the reagents and technique of both.

In this study we have obtained as close an agreement between the Kolmer Wassermann and the Kahn test as is usually obtained between two different procedures of the Wassermann test. We believe that the employment of both a complement-fixation and a precipitation procedure enhances the laboratory report. For the present we shall continue the Wassermann routinely and perform the Kahn test in addition, upon the request of the physician.

PHYSICIANS AND DENTISTS

Georgia Department of Public Health

The Georgia Department of Public Health announces that about August 1st, it will discard the list of physicians and dentists it has been using for several years and substitute therefor the list of physicians and dentists as registered with R. C. Coleman, Secretary of the Joint Examining Boards of the State.

After that time, if any physician or dentist in the state fails to receive communications and bulletins issued by the Department it will be because such physician or dentist has failed to register with Doctor Coleman.

It is especially urged that all physicians and dentists send in their registration cards at once to Doctor Coleman or the State Department of Public Health will bring one on the next mail. There is no fee connected with such registration.

PHYSICIANS WHO PLAY GOLF KNOW THERE'S A CLUB FOR EVERY STROKE

Almost any player can swing around the course with a single club, dubbing drives, lifting fairway sods, and bringing home a century mark or more for the final score. But the finished golfer needs a club for every shot—a studied judgment of approach or putt before the club is selected.

Similarly in artificial infant feeding. For the normal infant, you prefer cow's milk dilutions. For the athreptic or vomiting baby, you choose lactic acid milk. When there is diarrhea or marasmus, you de-

cide upon protein milk. In certain other situations your judgment is evaporated milk.

Dextri-Maltose is the carbohydrate of choice for balancing all of the above "strokes" or formulae and aptly may be compared with the nice balance offered the experienced player, by matched clubs.

To each type of formula (be it fresh cow's milk, lactic acid milk, protein milk, evaporated or powdered milk), Dextri-Maltose figuratively and literally supplies the nicely matched balance that gets results.

HOW TO CORRECT DIARRHEA

After a starvation period of twelve to twenty-four hours on boiled water or gelatin water (one-third ounce of gelatin to one pint of boiled water), the infant should be given Protein S.M.A. (Acidulated) diluted four level tablespoons with nine ounces of water, and without any additional carbohydrate.

	First Day	Second Day	Third Day (*)
Severe cases -----	3 oz.	6 oz.	9 oz.
Medium cases -----	10 oz.	15 oz.	20 oz.
Mild cases -----	15 oz.	30 oz.	

(*) Until the proper amount for their age and condition is reached, which is 200 c.c. per kilo of body weight per twenty-four hours, or three ounces per pound of body weight per twenty-four hours. However, the total twenty-four-hour intake need not go above thirty-two to thirty-five ounces or 960 to 1050 c.c.

After forty-eight hours, or when the stools become normal, Alerdex (Hypo-Allergic Maltose and Dextrins) should be added gradually, beginning with one ounce to the quart, and increasing until the infant is gaining steadily in weight. In certain cases, it may be necessary to increase the carbohydrate to a total of 12 to 15 per cent (three to four ounces of carbohydrate to the quart).

CONTRARY THERAPEUTIC AND SEX RELATIONSHIP OF SYPHILIS AND TUBERCULOSIS

William F. Petersen and Rudolph Hecht, Chicago (*Journal A. M. A.*, July 9, 1932), point out that the established therapeutics of tuberculosis and of syphilis is antithetical. The alternatives, in which category non-specific therapy may be included, used in dosages followed by catabolic effects, are effective in syphilis but harmful in tuberculosis. The biologic changes incidental to the female sex cycle have a corresponding contrary effect on these infections. Tuberculosis in the female is more malignant, syphilis generally more benignant, the reasons being found in the enhanced inflammatory reaction of the premenstruum. The sex liability of the tuberculous patient finds clear expression in the mortality curve, while the relative protection of the syphilitic female is demonstrated in the greatly lessened incidence of neurosyphilis. Fundamentally, of course, the difference in the ultimate clinical effect of the identical biologic cycle lies in the ability or disability of the tissues and fluids of the body to dispose of the virus which is disseminated when premenstrual activation of localized lesions takes place.

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SYMPOSIUM ON UROLOGY

TUBERCULOSIS OF THE KIDNEY*

*Symptoms, Treatment and Apparent
Prevalence in Georgia*

WALLACE L. BAZEMORE, M.D.
Macon

A tubercular process in the parenchyma of a kidney does not give urinary symptoms until there is extension to the pelvis of the kidney, producing tuberculous pyelitis. The abatement of symptoms following auto-nephrectomy, impressively illustrates this. In one case the patient presented himself with advanced pulmonary tuberculosis associated with marked vesicle irritation and strangury. The urinary symptoms were of two years' duration. Almost immediately after the diagnosis of renal tuberculosis was established, there was a rapid cessation of vesicle symptoms. At autopsy the right kidney was found almost completely destroyed; the ureter was effectively closed just below the uretero-pelvic portion.

The realization that the symptoms of renal tuberculosis depend upon the pelvic and vesicle changes present, and not on the changes in the renal parenchyma, should dispel any tendency that one may have to defer nephrectomy when the diagnosis is once established.

Frequently the symptoms of renal tuberculosis are greatly aggravated by the presence of pyogenic bacteria. Secondary infection more frequently supercedes bladder tuberculosis than kidney tuberculosis. Witnessing the improvement in frequency of urination following bladder instillations in those cases presenting large numbers of bacteria associated with the tubercular bacilli, impresses this fact upon us. This improvement following

bladder instillations in mixed tuberculous cystitis is in direct contrast to the lack of improvement in those cases uncomplicated by marked secondary infection. This latter form is less rarely encountered clinically.

Equally impressive is the improvement following correction of pelvic or vesicle retention. A patient of mine was so nearly relieved of all vesicle symptoms that she considered herself well following ureteral dilatations in the hands of another doctor. A rather marked frequency of urination was relieved by dilating a ureteral stricture. So skeptical was the patient of my earlier diagnosis, and so joyful over the results obtained by the dilatations, that she did not reveal to her benefactor that tubercle bacilli had been recovered from her urine. But the results obtained were only temporary, and she later returned to me for nephrectomy, which in no way gave her the immediate relief of vesicle symptoms that the correction of her pelvic retention had previously done. More extensive bladder involvement was now in evidence.

Considering the individual who presents himself with the earlier symptoms of tuberculous pyelitis, and who submits to nephrectomy, we expect a rather prompt amelioration of symptoms. By removing the tuberculous lesion responsible for the pyelitis, or cystitis, or both, we can, with a fair degree of certainty assure him that his symptoms will subside, though not immediately so. On one occasion I have promised immediate relief on purely a mathematical calculation. At cystoscopy an early tuberculous kidney was found to be excreting ten times the amount of urine of its normal fellow, a marked polyuria being present. There was no evidence of bladder tuberculosis. By removing a source of urine which was ten times greater

*Read before the Medical Association of Georgia, Savannah, Ga., May 18, 1932.

than that of his normal kidney, I felt that I could safely promise him one urination where ten previously existed. The immediate results obtained were almost as predicted. Should there have been present extensive vesicle infection, nephrectomy would have offered no such immediate relief of symptoms.

The distressing frequent and painful urination associated with renal tuberculosis is in direct ratio to the amount of tuberculous involvement below the parenchymal foci. At the onset the frequency is more noticeable by night. Pain is usually more severe at the end of urination. At first hematuria may be painless, although as the disease progresses such bleeding is more likely associated with terminal strangury. Severe colic may result from clots passing to the bladder. Compensatory hypertrophy of the normal kidney may cause pain in the opposite loin. Moderate fever is usually the rule.

The urine obtained from the non-tuberculous kidney frequently shows large amounts of albumin and casts, a toxic nephritis, curable by removing the offending tuberculous kidney. One encountering a kidney delivering a small amount of pus or blood, or both, with the opposite kidney enlarged, and the urine from this hypertrophied kidney showing albumin and casts, should at once suspect renal tuberculosis.

There may be long periods of remissions of symptoms in tuberculosis of the kidney. Renal tuberculosis does not heal, but the parenchymal lesion may become completely walled off for varying periods of time. This fact can be attested to by the following case: A young woman three years ago complained of rather severe frequency of urination and strangury of a few weeks' duration. Acid fast bacilli were recovered from the urine from her right kidney. She refused operation. Her symptoms remained about the same for a few months after which time she was apparently well. Three years subsequently there was a return of her vesicle symptoms and on removing her affected kidney, a large caseous mass was found, partly filling the upper pole, a lesion far more extensive than the duration of symptoms would indicate.

Until recently, there has been under my observation a case of bilateral renal tuberculosis with a similar remission of symptoms. With rest in bed for a period of two years she gained over sixty pounds in weight and appeared completely relieved of any urinary symptoms. Four years later with physical and radiographical evidence negative for pulmonary activity, she very suddenly died of tuberculous meningitis. There was, undoubtedly, a spontaneous walling off of the tuberculous lesions in her kidneys with the resulting remission of urinary symptoms.

We can hardly leave the subject of renal tuberculosis without a few remarks on the treatment of vesicle tuberculosis persisting after nephrectomy. We expect relief of vesicle symptoms following nephrectomy in cases presenting themselves before extensive bladder involvement is in evidence, but frequently before surgery is resorted to, we are confronted with one of the most rebellious vesicle lesions that we have to contend with. Some cases receive no benefit from any type of treatment, some are made worse, whereas, a few are relieved to the extent that they seek further treatment for relief. The correction of any form of retention is almost certain to offer some relief, be it along the urethra or bladder neck. Where marked secondary infection exists (as it most frequently does) warm irrigations and mild instillations are sometimes of benefit. Destruction of tuberculous ulcers by fulguration or by topical applications, has given good results in the hands of some men. Urinary antiseptics have no influence upon the symptoms. I have on one occasion controlled the marked frequency and strangury with large doses of Sandal Wood Oil, limiting fluids to the smallest bearable amount.

Converting the persistently acid urine of a tubercular patient to an alkaline medium may moderate the symptoms. As for local treatment, I have obtained the best results with instillations of carbolic acid into the bladder neck.

Tuberculin therapy is advocated by a few as a routine post-operative procedure where a tuberculous lesion has been removed. The results obtained as a therapeutic agent have

been disappointing to many. I have employed it in one case, a woman with bilateral kidney involvement. The results obtained were apparently beneficial; whether it was the tuberculin or the fact that she was more constantly under observation while on this type of treatment, I hesitate to say.

The best possible hygiene and diet should always form the background in the treatment of any form of tuberculosis.

The diagnosis of urinary tract tuberculosis is established by finding the organism in the urine. If in a suspected case this should prove negative, culture, and guinea pig injection should be resorted to. Cystoscopy is necessary in diagnosing whether one or both kidneys are infected. Finding tubercle bacilli in the urine requires painstaking examinations. Frequently repeated smears are necessary, done at intervals, before a positive diagnosis is established.

Renal tuberculosis is decidedly a disease of young adults, although of the eleven cases that we have observed, two were in patients past sixty years of age. Apparent good health should in no way exclude tuberculosis from your suspicions. Spontaneous or prolonged pyuria, associated with cystitis, the presence of red blood cells, a small amount of albumin in an acid urine, should constitute sufficient evidence for repeated examinations of the urine for the tubercle bacilli.

Renal tuberculosis is more frequent in certain localities than in others. While in our own state we see much less urinary tuberculosis than in some other sections, it appears that the disease is rather prevalent among us. Eleven urologists in Georgia report to me they have made a definite diagnosis in sixty-eight cases of renal tuberculosis in the past five to ten years. Some have observed only one or two cases, while others have seen several. Surgeons throughout the state have possibly seen an equal number of cases, and a few have undoubtedly passed through some of our hands without a diagnosis having been established. The prevalence among us of renal tuberculosis is shown by the fact that whereas only one hundred and nine cases were admitted to the urological service at Bellevue Hospital during the

past ten years², eighty-four cases were seen by Doctor Keyes³ in his office over a similar period.

The diagnosis of urinary tuberculosis depends absolutely on finding the organism in the urine. When better laboratory facilities are at the command of all, we shall diagnose more cases.

With the continued efforts of the profession to eradicate pulmonary tuberculosis, we shall see less and less renal infection. Close medical supervision is of the greatest importance. To remove a tuberculous kidney, or a tuberculous epididymis, with neglect of a distant focus, only invites further urinary involvement. With the continued co-operation of the internist we, as urologists, will further be spared treating one of the most rebellious urinary maladies that we have to deal with.

REFERENCES

1. Keyes Urology, D. Appleton & Co.
2. Personal communications.
3. Personal communications.

RESULTS IN TREATMENT OF ACUTE APPENDICITIS

FRANK K. BOLAND, Atlanta, Ga. (*Journal A. M. A.*, Aug. 6, 1932), presents a statistical study of the results obtained in the treatment of acute appendicitis. The study is based on a review of 4,270 cases in which treatment was given by 197 surgeons in eight hospitals in Atlanta during five years, from 1927 to 1931, inclusive. All except forty-six of the patients were submitted to operation. The fact that there were no deaths among 219 patients admitted within six hours after onset demonstrates the immense value of prompt action. Most of these patients were students and nurses under closer supervision than the average person. The author concludes that the two outstanding factors in mortality and morbidity are delay in operative treatment and the promiscuous administration of purgatives before operation. The fault usually lies with the patient or with his family or friends, but the attending physician or surgeon is not always blameless. The error may be due to ignorance on the part of the patient, but it also may occur with the knowledge and consent and advice of the medical attendant. The physician's mistake is not one of ignorance, but of carelessness. Efforts must be continued and enlarged in the education of the public as to the early care of abdominal pain, a campaign that has been waged so vigorously in Philadelphia. The medical profession, however, must not be guilty in this respect, and not let familiarity with the commonest of all surgical diseases induce criminal somnolence.

ABNORMAL URETERS*

S. A. KIRKLAND, M.D.
Atlanta

In order to fully appreciate abnormalities one should be cognizant of the variations of the normal. A little variation in length, diameter or location of an organ does not necessarily mean a pathological condition.

The normal ureter is a flattened tube extending from the outlet of the kidney pelvis about seven centimeters below the renal hilus to one angle of the vesical trigone. Different authors give the length from twenty-eight to thirty-four centimeters, the left being about one centimeter longer than the right. From the renal origin they extend obliquely downward and inward through the lumbar region into the cavity of the pelvis, across which cavity their course is downward, forward and inward.

For convenience of study, the ureter may be divided in several different ways. A very simple and clear method of division is, abdominal and pelvic portions; the abdominal extending from the junction of the ureter and renal pelvis to the point where the ureter crosses the iliac vessels; the pelvic from the point of crossing to the floor of the bladder. The diameter of the ureters ranges from one and one-half to seven millimeters with constrictions at the uretero-pelvic junction, at the middle of the abdominal portion and the uretero-vesical area. In interpreting ureterograms, it is well for one not to lose sight of these normal constrictions of the ureters.

The ureteral muscular structure consists of an outer and inner longitudinal, as well as middle circular layer. The longitudinal layers appear uniform throughout, but the circular layers present areas of hypertrophy which correspond to areas of constriction in the lumen. It has been advanced that these circular rings represent relay stations for the peristaltic waves that originate in the musculature of the pelvis of the kidneys and are influenced by the nervous mechanism of the ureters. In considering the areas of constriction, the mechanism of the expulsion of



FIGURE 1
 Double kidney right with two dilated ureters anastomosing at junction of lower and middle third of ureter.

urine must be borne in mind. One must not lose sight of the normal ureteral peristalsis, as well as its behaviour under stimulation, irritation, or manipulation with catheters. Some urographic media can produce artifacts which are difficult to interpret at times.

For convenience the writer has divided abnormal ureters as follows: First, those in which the abnormality is due to size; second, the ones in which the shape is abnormal; third, the ones abnormal on account of their position; fourth, the ones abnormal in number. Many abnormal ureters are congenital in origin. Few are primary pathological conditions while many are secondary to some renal, vesical or other pathology.

Among ureters of abnormal shape, one may find the tortuous type which has furnished a field for diligent study by different eminent urologists, many of whom have concluded that such conditions are due to the persistence of the rotation of the Wolffian duct during its development. In this same class one may find a ureter with a kink which may be due to a congenital condition or some abnormal mobility of the kidney. Many of these types give rise to pain of a dull or colicky nature and

*Read before the Medical Association of Georgia, Savannah, Ga., May 18, 1932.



FIGURE 2
Double kidney right with bifurcated ureter.



FIGURE 3
Double kidney right with bifurcated ureter at upper and middle third.

on account of causing defective drainage of the kidney may cause a hydronephrosis or predispose to an infection of the ureter or kidney. In a long, loose ureter one can cause an artificial kink with a catheter. In view of this, it is well to make an x-ray with the catheter in place, as well as to withdraw the catheter and make a second ureterogram.

Ureters abnormal in size may have lumens of different caliber. Variations in size may be attributed to such causes as: infection, foreign body in ureter, stricture, growth in ureter, or some pathology within the bladder which, if not corrected, will lead to a hydroureter or a pyoureter. A condition of this nature will eventually spread up to the kidney, thereby causing more serious pathology.

The third classification, ureters abnormal in position, are chiefly congenital in origin. The ureter may enter the kidney at different levels either on the mesial or posterior aspect. These abnormally placed ureters cause pain, very often, and when worked out thoroughly will show a hydronephrosis of this side. A number of ureters have been reported which had an ectopic opening into the urethra of both male and female, also those opening into the seminal vesicals, vas deferens and ejacula-

tory ducts. One may find the abnormal entrance of the ureter into the bladder, this usually being accomplished with a ureterocele. There may be a blind ending ureter which shows dilatation of the ureter or kidney pelvis or possibly a maldevelopment of the kidney in which there is very little kidney tissue. Not infrequently, one finds several of the above anomalies in the same patient and invariably this type of ureteral anomaly is accompanied with some renal or vesical pathology.

The fourth class includes variations from the normal number of ureters. One may find a complete lack of development of the upper urinary tract on one side. One may find two complete ureters with two ureteral orifices or a bifurcated ureter with only one orifice. These abnormalities may be found either unilaterally or bilaterally. There are any number of different angles at which the ureters may enter the kidney or the bladder or in which one ureter may connect with the walls of another. In most cases where one finds supernumerary ureters, they are associated with double kidneys. These anomalies usually lead to some actual kidney disease.



FIGURE 4
Double kidney left with two separate and distinct ureters throughout.

In order to be able to treat abnormal ureters successfully, one must know exactly with which type he is dealing. Various diagnostic procedures may be used to determine this, since the advent of cystoscopy and the recent x-ray and laboratory methods.

The modern cystoscopist will not stop after making his cystoscopic examination, flat x-ray and urinalysis. Should the examination with his cystoscope divulge the fact that the patient has only one ureteral orifice, the next step would be to give an indigo-carmin test to verify the findings. In the event one was unable to catheterize the patient's ureters on account of some existing abnormality, he should resort to one of the intravenous uretrographic media, such as Skiodan or Uroselectan.

One should not lose sight of the fact that nearly all anomalous ureters are associated with some kidney or bladder abnormality. In dilating a ureteral stricture, one invariably helps to clear a hydronephrosis or a pyonephrosis. The same relief may be accomplished for the kidney by removing some growth or stone from the ureter. So in treating abnormal conditions of the ureters, one is



FIGURE 5
Large calculus right kidney. Stricture right ureter.

usually helping to free the upper G. U. tract of some existing pathological condition.

Not all abnormal ureters can be treated successfully with the cystoscope alone. It is remarkable, however, what a well trained cystoscopist can accomplish through this instrument. Small stones can be removed by passing one or two catheters up the ureter beyond the stone and injecting a little sterile olive oil. A good way to tease stones out is to pass as many catheters beyond the stone as one can possibly get by the body, allow to remain in place for twelve to twenty-four hours. In this way, the ureter below the stone is dilated and the stone will pass easily after instilling the oil and removing the catheters. Very often the stone will pass on out along with the catheters when they are pulled out of the ureter. The writer has removed as many as six or eight stones from one patient with this method. There are a number of different types of stone dislodgers and dilators, as well as special ureteral dilating cystoscopes which are helpful in removing ureteral stones and dilating strictures of the ureter. By this one establishes good drainage from the kidney to the bladder and helps eliminate any infec-



FIGURE 6

Large calculus covering entire pelvis and calices of kidney.
Stricture right ureter.

tion that may have formed in the kidney above the ureteral obstruction. If the stone or stricture is discovered early and properly treated, one may avoid any kidney pathology, which complication makes the condition far more difficult to treat.

Besides the cases treated with variously designed instruments, one finds the conditions which necessitate surgical intervention. The type of operation depends on the existing abnormality. Some abnormalities are possibly better left untreated. If one finds double ureters with two ureteral openings into the bladder where good drainage is from the kidney, or the two kidneys as is usually the case, and no infection and no pain, this, in my opinion, is an abnormal condition which should be left alone. If, however, one finds a bifurcated ureter where one ureter enters the other at such an angle as to establish poor drainage, possibly an infection, the patient complaining of pain and nausea, surgical intervention is indicated.

Proper treatment of ureters will improve the renal and vesical function so often im-



FIGURE 7

Double pelvis right kidney.

paired by some pathology existing in the passage from the kidney to the bladder. Since the types of ureteral conditions are so varied, one cannot map out any definite procedure of treatment. Where one has taken advantage of the most recent methods including the cystoscope, x-ray, intravenous pyelographic media, dyes such as indigo-carmin, phthalein, etc., and made a proper diagnosis of the existing ureteric condition, one's conclusions relative to treatment can be made more easily and properly, and the methods utilized in treatment will produce far better results. In other words, in order to successfully and intelligently treat pathological conditions of the ureter, one must thoroughly work out and know the existing condition.

Following are some illustrative cases:

Case I.—C. H. K., age 37, male, was admitted to the hospital complaining of severe pain in his right loin and frequent urination. Pains were of such severity until it was necessary to administer opiates. This man had suffered these attacks for several years and the intervals between the attacks had grown less. Urine showed a trace of albumin and a large number of white blood cells. Cystoscopic revealed a mildly inflamed trigone and a little irritation around both ureteral orifices. Number six catheters were passed up both ureters, specimens collected and a pyelogram made. Microscopical report showed quite a few white blood

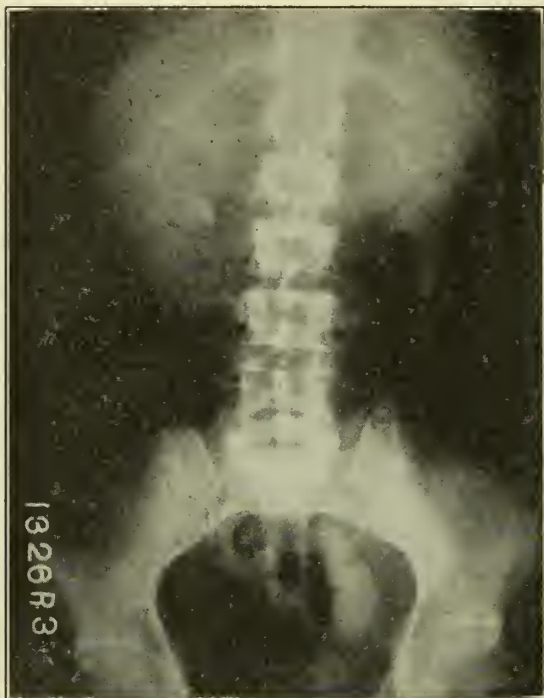


FIGURE 8

Skiodan. Blind ureter left with piece of ureteral catheter and calculus in left kidney.

cells from both pelves. Seventy-five c.c. of sodium iodide was instilled into the right pelvis and ten c.c. into the left. The pyelogram showed a double kidney on the right side with two ureters which anastomosed about the junction of the middle and lower third. This man had a four plus Wassermann. Anti-luetic treatment was administered. When he had these severe pains in his right side, passage of a large ureteral catheter would make him comfortable and as soon as he had relief, he would want to leave the hospital. So no surgical intervention was done.

Case II.—D. M. C., male, physician, age 58. Chief complaint was general weakness, lack of endurance and frequent urination. Pyelogram revealed double ureters and double kidney pelves.

Case III.—B. F. W., white, male, age 38, druggist. Came into the hospital complaining of pain over right loin which radiated downward. Patient said that the pains over his right lower quadrant were rarely easy. This condition had existed for five years. Pyelogram divulged double ureters with double right kidney.

Case IV.—R. E. C., white, male, age 48, lawyer. Chief complaint was backache with general weakness. Cystoscopic revealed two ureteral orifices on left. Pyelogram showed complete double ureters, left with double pelves of kidneys.

Case V.—L. O. C., white, male, age 33, salesman. This patient complained of severe backache. Urine showed a large amount of pus. Impairment of function of kidney. Pyelogram divulged a decided kink in right kidney and a large stag horn shadow covering the entire right pelvis of the kidney. Nephrectomy performed and a very large stone was found in the

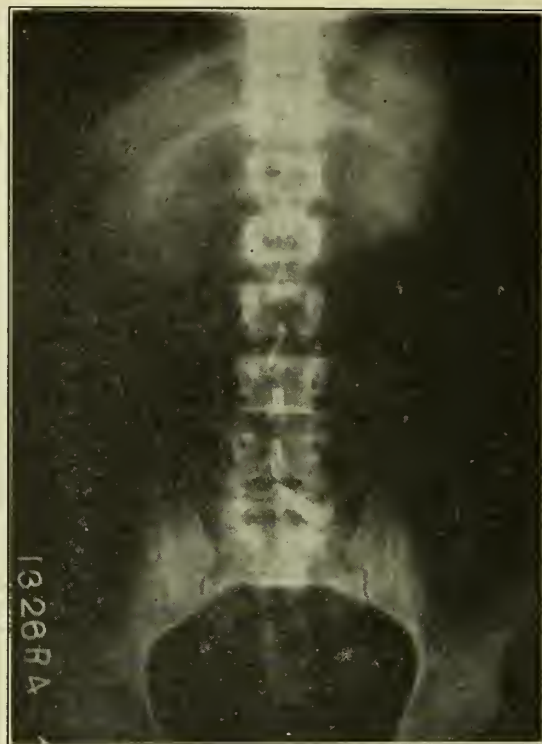


FIGURE 9

Skiodan. Blind ureter left with calculus and tip of ureteral catheter in left kidney.

right kidney. This case is reported on account of the unusually large stone and the decided kink in the ureter. Poor drainage on the right, brought about by the kink, possibly predisposed to the formation of this stone.

Case VI.—C. A. R., white, male, age 40, farmer. This man came into the hospital with pain over left lower quadrant. This patient said he was rarely easy when up on his feet except when he was under the influence of some sedative. Not so much pain when he was in bed. His constant pain began just subsequent to a cystoscopic which he underwent about two years previous to coming under the writer's observation. He claims that the doctor who cystoscoped him got the catheter caught some way up in the left ureter. On attempting to remove this catheter, the man said he felt as though his kidney would be pulled out with the catheter. On cystoscopic I found that the ureter on the left was completely closed. Catheter would pass only about three inches up this side. This patient was given Skiodan intravenously and a series of x-rays taken which divulged a blind ureter on the left with what appeared to be a hypoplastic kidney. Indigo-carmin was administered intravenously and it was found that no dye appeared on this side for thirty minutes. Right kidney showed normal function with phthalein. Blood count and blood chemistry were normal. Wassermann was also negative. A nephrectomy was performed and a small kidney was found on this side, in the calices of which was found a stone about the size of an acorn and a portion of a ureteral catheter about an inch long. Patient made an eventful recovery.

PERINEPHRITIC ABSCESS*

E. B. ANDERSON, M.D.
Americus

Perinephritic abscess is by no means a new and uncommon disease. There are hundreds of masterful references to this condition that go back to Hippocratic times. There has been much modern writing on this subject and much contention about the nomenclature. Some use the prefix *epi*, others the prefix *para*, while others have employed the prefix *peri* in their writings. Eisensteadt¹ pointed out that there may be very slight technical differences but clinically all are the same. In this discussion I shall use the more common prefix *peri*.

Etiology. Perinephritic abscess is predominantly a disease of the male. Campbell's² records showed males 67, females 16. This is a fairly good average of occurrence of this condition in many large clinics; possibly the result of the greater incidence of suppurative skin diseases in men. All ages from infancy to extreme old age are affected. Renal and extra-renal causes are given by many American writers. Fowler and Dorman³ use these terms to designate the site or origin of the abscess. In extra-renal infections the causative agent may be blood born, lymph born or the result of some exciting agent in the tissue surrounding the kidney. Hematogenous infections are very much more common than the other types mentioned. Brunn and Rhodes⁴ very graphically showed this in their presentation of hematogenous infection of different types. The renal causes of this condition are lithiasis, pyonephrosis, hydronephrosis and tuberculosis. Bacteria that cause this condition are most commonly the staphylococcus (*aureus* and *albus*) and the colon bacillus, staphylococcus being more commonly the cause of hematogenous infection and the colon bacillus the cause of the renal type of infection. Because of their tendency to clump, Dyke⁵ in his experiments, was convinced that the staphylococci lodged in the terminal vessels of the kidney. Renal carbuncle is a frequent cause of perinephritic abscess as was proven by Moore, Lazarus and

others⁶. Superficial skin infections such as paronychia, furuncles and other phlegmonous superficial processes account for a large per cent of the hematogenous infections. The colon bacillus holds a second place as a causative factor in the production of perinephritic abscesses. The renal type of abscess that follows trauma, hydronephrosis, pyonephrosis, calculus disease of the kidney and tuberculosis are usually caused by the colon bacillus. Floyd and Pittman⁷ and many others have reported interesting cases of this nature.

In the early stages of acute perinephritic abscess not all the signs and symptoms are present and the condition may be confused with kidney lesions or diseases in the neighborhood of the kidney, but not in any way related to it. A feeling of lassitude, chilly sensations, fever and pain in the costovertebral angle are the early symptoms of an attack of perinephritic abscess. The absence of urinary symptoms is the rule, though there may be a history of them. Pain is a fairly constant symptom and may be either mild, severe or dull aching in character. It is located over the affected kidney and does not tend to be referred. As the disease advances the pain area increases in size and by it one is frequently able to make out tumor formation. The tumor develops more or less rapidly and the patients are occasionally able to make them out themselves. Fever of a septic nature is always present. There is a wide range in the temperature which may vary four or five degrees in twenty-four hours. These patients become quite sick with all the signs of an acute sepsis. In the chronic type of perinephritic abscess the above symptoms may vary slightly, the onset is gradual, with slight afternoon rise of temperature. A dull aching pain in the kidney region is the rule. In the chronic types we have a tendency to dissecting abscesses. These may burrow downward and point in the lower abdomen or in the superficial tissues of the back. Tenderness on deep percussion over the abscess is an almost constant factor.

In all discussions of this subject writers without a single exception claim this to be a condition that is very difficult to diagnose as it may closely simulate a lower chest dis-

*Read before the Medical Association of Georgia, Savannah, Ga., May 18, 1932.

ease, an upper intra abdominal disease, diseases within the kidney proper, and any one of several acute fevers. The writer believes that it is a condition fairly easy of diagnosis and will attempt to make this clear. In cases of primary organic lesions of the kidney such as pyonephrosis, hydronephrosis, lithiasis and tuberculosis, examination of the urine discloses evidence which leads to further investigation of the urinary tract. However, in hematogenous infections a large percentage of cases, the absence of urinary findings is the rule. Pyelography, unless there is communication between the abscess and some calyx, is uniformly negative so far as establishing a diagnosis is concerned. Comparative renal function tests may give little or no information as to the diagnosis. When the abscess is either large enough to make pressure against the ureter or there is marked existing kidney pathology there may be some variation in the function of the two sides. Rapid tumor formation in the neighborhood of the kidney is suggestive of perinephritic abscess and is always a strong point in the diagnosis. These patients always run a septic course and have a high white blood cell count. We frequently see them with a count running up to thirty or forty thousand white cells per cubic millimeter of blood. There is usually an associated secondary anemia. Pain in the costovertebral angle is a fairly constant factor and may or may not be severe in nature. The position in which these patients lie is interesting. They almost without exception lie with the hip and ribs on the affected side drawn together and are more comfortable with the leg elevated and slightly flexed at the knee. Flat x-ray films give much definite information. Lipsett⁸, Beer⁹ describe two important signs. They are, first, obscuration of the lateral edges of the psoas muscle and, second, curvature of the spine with the concavity toward the affected side. Obscuration of the psoas muscle is the result of marked edema of the tissues immediately surrounding the kidney. Curvature of the spine is the result of muscular contraction on the affected side. Shortening of the distance between the ribs and iliac crest on the affected side is also a good point in diagnosis.

Free drainage is indicated as soon as a positive diagnosis is made. This should consist of the usual oblique lumbar incision large enough to give free access for careful exploration of the kidney if necessary and to give free drainage of the abscess. Exploration should be done very carefully to prevent undue trauma to the tissues. Cases of tuberculosis, pyonephrosis, hydronephrosis and multiple abscesses may require subsequent nephrectomy while calculi can usually be removed necessitating only drainage of the abscess. Drainage for the relief of the abscess is the first consideration in the treatment of any perinephritic abscess.

Perinephritic abscesses may be present either as a small localized lesion or an extensive invasion of a pyogenic infection of all the tissues surrounding the kidney. It may involve subphrenic, thoracic, peritoneal, and subcutaneous tissue as well as the perinephritic soft tissues. If the abscess is extra-renal in origin the kidney may be compressed. If the abscess is renal in origin there may be localized, diffuse cortical or universal parenchymal suppuration, renal carbuncle, stone, pyonephrosis, or hydronephrosis. The primary abscess may be located in any part of the kidney. In colon bacillus abscesses there is the usual foul odor of the pus, while in staphylococcal abscesses there is no odor to the pus.

The outcome is dependent on the cause and the time between onset of disease and institution of treatment. In primary metastatic cases the prognosis is good with early drainage, but where there is much kidney destruction the prognosis depends much on the extent of renal damage. The virulence of the infecting organism and the patient's resistance is always up to the surgeon's judgment. The mortality rate ranges from 6.6 per cent by the Mayo Clinic to 40 per cent by Miller.

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DISCUSSION ON PAPERS OF DRS. BAZEMORE, KIRKLAND, AND ANDERSON

Dr. S. J. Sinkoe, Atlanta—Doctor Bazemore has given us a very interesting presentation of renal tuberculosis. He has spent considerable time corresponding with the urologists throughout the South, and his reports show that renal tuberculosis is not an uncommon condition in our locality. He has emphasized the fact that this condition is one of the most baffling entities that we are called upon to treat, and also, has described the improvement, resulting from removal of the diseased kidney.

It is surprising that so few papers on renal tuberculosis are presented by our Southern urologists. It is a well known fact that the Eastern urologists report a much larger number of these cases. Whether this is due to climatic conditions or whether it is due to the fact that we do not resort to as many cultures, guinea pig inoculation tests, etc., as our Eastern colleagues is a question that I cannot answer.

It is my opinion that every persistent case of cystitis should be examined thoroughly in order to rule out tuberculosis. One of the best articles on renal tuberculosis that I have ever read, was presented at the annual meeting of the American Urological Association in Chicago, during June, 1928, by Dr. Hans Wildbolz of Switzerland. He has observed in his own private work a total of 660 cases, and has studied carefully the pre-operative and post-operative results including the end-results. He has shown that nephrectomy not only relieves the symptoms of the patient, but in conjunction with general treatment, he has prevented the further spread of the disease to other structures, and in addition, if there were any tubercular foci in other organs, they had a tendency to cicatrize. The patients that die following an operation for renal tuberculosis, generally succumb to tuberculosis of the remaining kidney or to pulmonary tuberculosis. Other causes may be miliary T. B., intestinal T. B., etc. A troublesome factor is the presence of a persistent cystitis, even after the diseased kidney has been removed. The condition, however, may respond to injections of methylene-blue, iodoform, gomenol, tuberculin and x-ray therapy.

It is sometimes difficult to determine whether the patient has a caseo-cavernous form of T.B. or a fibrotic type, and whether the condition is unilateral or bilateral. Many urologists are of the opinion that the finding of tubercle bacilli in the renal secretion signifies a caseous tuberculosis of the corresponding kidney, and that the kidney should be removed, provided the other is healthy. However, it has been shown that tubercle bacilli may pass through the kidney and appear in the urine without eliciting microscopical tubercular change.

How do we distinguish between the caseous-tuberculous types of kidney disease and the tuberculous nephritis? In the caseous type of disease, the lesions generally are located in the calyces, or about the papilli, while the tuberculous form has a tendency toward fibrosis. The lesions in the caseous type have a tendency to rupture into the renal pelvis, causing

pus, blood, and tubercle bacilli to appear in the urine. In caseous tuberculosis, the secretory function of the kidney is reduced more than it is in tuberculous nephritis. In addition, toxemia is more intense in the former.

Tuberculosis of the kidney in more than one-half the cases, is unilateral, and only if the condition has existed for a long period, does the other kidney become involved. The demonstration of bacilli in the urine of a suspected kidney does not always prove that there is tubercular pathology in that organ. Its presence may be due to bladder reflux, ureteral catheter contamination, etc. Since the caseous type rarely heals, nephrectomy is always indicated. One must remember that nephrectomy performed in a case of bilateral renal tuberculosis, always causes a high mortality. Too many cystoscopic examinations should not be resorted to in unilateral renal cases, since it is easy to infect the sound kidney.

Pyelography is not employed to any extent by our European colleagues in diagnosing renal T. B. However, if we study the radiograms of these patients, and determine that we have two kidneys in normal position, that there exists definite pathology on one side, and normal pelvic outline of the corresponding organ, and if we can demonstrate early tuberculous change in one kidney as compared with the normal appearance of the other, and if we can demonstrate diminished renal function on the affected side, in addition to the presence of tubercle bacilli, pus, blood, etc., sufficient evidence should be at hand to warrant an operation for nephrectomy.

Since renal tuberculosis is generally associated with tuberculosis in other parts of the body, supportive treatment, e.g., fresh air, diet, sunlight, etc., as outlined in the general treatment of pulmonary tuberculosis, should be resorted to.

Dr. Earl Floyd, Atlanta—I have enjoyed this symposium very much and wish to express my appreciation to each of the essayists. Genito-urinary tuberculosis is uncommon in this section of the country, much more so than in the North and Northeast, and this is very probably due to the climatic conditions that we have here. Tuberculosis of the epididymis and testicle have to be differentiated from teratoma. Mistakes have been made, even by pathologists.

Doctor Kirkland's paper on abnormal ureters is of interest because of the pathology they produce. It is not an uncommon thing to find a pathologic kidney with two ureters or some abnormality of the ureter. Even an abnormal meatus should suggest some disturbance of embryonic development in the upper tract. Given a pathologic condition of one kidney and an abnormal ureter on one side, the probability is that the pathology is on the side of the abnormality.

Perinephritic abscess is the most interesting condition that one has to deal with along urological lines, from the standpoint of diagnosis and the pathology that it develops in and around the kidney. Before operating on these patients one should try to determine the type of perinephritic abscess that he is dealing with,

for this, in a way, will determine the length of the incision. If a small incision is made and the abscess drained, carbuncle of the kidney might be overlooked. Occasionally these abscesses are secondary to some cortical involvement of the kidney.

Dr. J. L. Pittman, Atlanta—I wish first to agree with Doctor Anderson that the diagnosis of perinephritic abscess is fairly easy to make provided one will systematize their urological examination, first in regard to history, second, study of the plain x-ray film, and third, the symptomatology that he brought out in his paper as to the diagnosis.

One of the most important findings that will enable us to arrive at a diagnosis is the obliteration of the psoas muscle on the affected side. Wesson says that in any x-ray film that fails to show clearly the psoas muscle with symptomatology as outlined by Doctor Anderson, that is, pain over the lumbar region, chills, and septic temperature, coupled with a history of previous boils, carbuncles, or of having had infected teeth removed, we are justified in suspecting perinephritic abscess.

Most observers are of the opinion that in the extrarenal or hematogenous type of perinephritic abscess the urinary findings give no helpful information. This is something we have not found true; a careful examination will reveal a few pus cells or at least some strain of the staphylococcus.

In most of these cases, as Doctor Anderson stated, the pain is usually located over the affected kidney but in some instances there is a referred tenderness anteriorly over the lower abdomen. This has been interpreted by Belikoff as due to pressure on the lumbar nerves; that is, the abscess presses against the first lumbar nerve and causes tenderness anteriorly where it divides into the ilio-inguinal and ilio-hypogastric nerves.

Doctor Anderson has brought out the various types of perinephritic abscesses in a very thorough and concise manner and he has also outlined briefly the treatment that we think is best for this condition. I thoroughly enjoyed his paper and wish to thank him for the privilege of discussing it.

Dr. R. F. Wheat, Bainbridge—Doctor Anderson mentioned perinephritic abscess in children. Childhood cases are unusual and more difficult to diagnose than in adults. The children are commonly between the ages of five and ten years, but one case, which was diagnosed at autopsy, is reported in a child aged five months. These cases are almost always secondary. The causes are usually fevers, such as typhoid, scarlet, measles or skin diseases. The fever may persist for a long time undiagnosed. It may run for two, three or even four weeks with no symptoms pointing to urinary or kidney involvement.

The location of the abscess makes the diagnosis more difficult. When situated at the upper pole of the kidney it may simulate pneumonia or pleurisy. On the anterior portion of the kidney it may simulate peritonitis or other abdominal conditions. After the fever has continued for several weeks the child often

develops some upper respiratory tract symptoms and is treated for pneumonia or bronchitis.

In a report from the Cook County Hospital, Chicago, there is a series of fifty-five cases in five years, of which twenty-one gave a history of previous renal involvement; one an injury and one an appendiceal abscess. (I recently saw a case of appendiceal abscess that cleared up but caused a perinephritic abscess a short time afterwards.) The other cases in that series were of metastatic origin. The ages varied from twenty to forty years, although one patient was sixty-four. The right side was most frequently involved. I agree with the essayist that the condition is commonly easy to diagnose, but some of the patients tax us very much in making a diagnosis for infections which exist elsewhere and are pyogenic. We may study a case for weeks without finding the real cause of the trouble. The urinalyses show no signs and the roentgenogram shows no involvement of the psoas muscle and diagnosis may not be made for several weeks. One aid to diagnosis not mentioned so far is careful aspiration of the kidney area. I think this is the most helpful aid to diagnosis.

Recently I saw a patient, a man aged 40, with a negative past history and no pain in the kidney region. He had been treated for about four weeks before I saw him. They had first diagnosed the case as gallbladder trouble, liver trouble, and a tentative diagnosis of typhoid fever had been made. There were no urinary findings. No roentgenographic examination was made but on physical examination I found slight sensitiveness over the right kidney. There was some bulging or a little marked pain on pressure. Aspiration revealed pus, was drained, and the patient recovered.

Dr. W. A. Upchurch, Atlanta—In perinephritic abscess, as brought out by Doctor Floyd, we should make a wide incision for in so many instances we will find a cortical abscess in the kidney proper and it is well to open and drain those. The small incision in perinephritic abscess is a mistake for we cannot investigate properly and do not know what we have done.

In reference to Doctor Kirkland's paper, I wish to emphasize the need of looking for strictures in the ureter when there is indication, possibly, of appendiceal trouble. In a patient referred by Doctor Fuller, the man had an entirely negative urine on three occasions, but there was pain in the right lower quadrant. Cystoscopic examination revealed a stricture of the ureter and pus cells in the urine from that kidney. That meant that the ureter was entirely blocked and because we were getting normal urine did not mean that there was no infection, for we got no urine from that kidney. A catheter was left in place for drainage and the temperature receded and the pain subsided.

Dr. George W. Fuller, Atlanta—I think someone should discuss this paper from the standpoint of general surgery and emphasize the importance of the differential diagnosis. The case Doctor Upchurch mentioned is a typical example of the problems that often confront one in dealing with abdominal surgery. The

puzzling differential diagnosis between a retrocecal appendix and some condition in and around the kidney and ureter is a frequent problem. Such a problem arose a few days ago. I felt that the diagnosis was some kidney condition, but there was nothing to show definitely that it was not a retrocecal appendix. However, a cystoscope in the hands of Dr. W. A. Upchurch quickly cleared the matter. A stricture of the ureter was found, through which it was difficult to pass the smallest catheter. After the stricture was passed, urine on the kidney side was obtained and the specimen gave definite indication of kidney pathology. While we should be careful to make accurate diagnoses, I do not believe that too much delay should be practiced where the appendix may be concerned. In my judgment, it is better to occasionally remove a normal appendix than to delay too much on one that is involved.

Dr. Harry Y. Righton, Savannah—Discussing Doctor Anderson's paper, there is one point I would like to mention relative to the procedure of operation in perinephritic abscess. I think it very important to secure proper drainage, but not to interfere with nature's barrier. As brought out in the discussion, these cases are not always easy to diagnose, as many times the patient is treated for malaria or some other condition before the abscess is recognized. Nature's barrier, constructed over this long period, when broken through at operation, permits absorption of toxins or organisms and the patient will most probably have a stormy convalescence, if not a sad ending. I think those of us who do surgery find it a great temptation when operating upon a perinephritic abscess to remove the kidney when involved. This, in my opinion, should never be done as it will most probably prove disastrous. Even though you feel certain he will eventually lose the kidney, give him every opportunity to recuperate before attempting a radical procedure.

The prevalence of this condition in children has been brought out and many cases that have been reported with bad results are no doubt due to late diagnosis, since diagnosis is more difficult than in adults.

Relative to Doctor Bazemore's paper on tuberculosis of the kidney, I feel that in any case of intermittent haematuria, we should suspect renal tuberculosis, regardless of what the patient's physical examination may reveal. These patients commonly give a history of haematuria long before they have such symptoms as rise of temperature or pain. It is not easy to diagnose in the incipient stage.

Dr. Wallace L. Bazemore, Macon (closing)—It is not my contention that tuberculosis of the kidney or the genital tract is as prevalent in our state as in other sections, but I think the number of cases collected in the various portions of the state certainly shows that the disease is with us and should be searched for. I do not think we should confine our examination to the chronic cases but that the acute cases should be examined, the urine always for tubercle bacillus, and in that way we may discover more of

these cases. The fact that a patient looks well and is robust does not exclude tuberculosis of the genital tract by any means. One of the healthiest appearing persons I have ever seen had a tuberculous kidney. I think the statistics of the hospitals and of private practitioners impress upon us that this is not a disease of the poor alone. When the figures are brought before us we see that there are only a few more cases seen at Bellevue Hospital than in Doctor Keye's own private practice. This impresses the fact that this is not a disease of poor people. I think the urine should always be a twenty-four specimen, and it should always be collected in the same bedpan or urinal, one used only by the patient. I confess that I am very good in picking out tuberculous lesions on the pyelogram after I have found the bacilli in the urine, but I cannot do this before I have found the organisms in the urine.

There are two points in regard to Doctor Anderson's paper on perinephritic abscess that I would like to mention. One is careful palpation anteriorly, and the other is the palpation of the loin simultaneously. If you have the patient lying flat in bed I think you will get a definite fullness in the loin, and if this is present you are justified in making a diagnosis of perinephritic abscess.

Dr. S. A. Kirkland, Atlanta (closing)—I am very grateful for the discussion, but feel there is nothing that I can add. In my opinion one reason the subject of abnormal ureters has created such an interest among the urologists, is the fact that such numbers of these conditions are pathological. Since the advent of modern urological methods many diseased ureters, kidneys and bladders, caused by abnormal ureters, are cleared, that formerly were undiagnosed and untreated.

Dr. E. B. Anderson, Americus (closing)—I wish to thank the gentlemen for their liberal discussion. Doctor Floyd, in his discussion of my paper, mentioned the necessity for making a large incision. I think an incision large enough to permit the possibility of exploring the kidney is a good point, as brought out by him.

I agree with Doctor Righton that not too much trauma should be done. In my paper I stressed the point that exploration should be very carefully carried out in order to prevent undue trauma to the tissues.

Doctor Wheat in his discussion brought out the point regarding age. Doctor Kretschmer, of Chicago, reported a case in a thirteen-day-old infant, and someone else has reported a case in a man eighty-four years old. I think those are the two age extremes.

Doctor Upchurch brought out the point that possibly a cortical abscess would be overlooked in too small an incision. One of the things I wish to bring out in the discussion is that careful study of urologic conditions makes it possible for us to arrive at a correct diagnosis. I think most urologic conditions are just as easily diagnosed as lobar pneumonia by the internist, or acute appendicitis by the general surgeon, if we carefully study them.

ARTHROPLASTY OF THE TEMPOROMANDIBULAR JOINT*

Report of Case

JOHN D. BLACKBURN, M.D.†
Atlanta

I. O., a white girl, fourteen years of age, was admitted to Grady Hospital, complaining of inability to open her mouth for the past eight years. She had



FIGURE 1
See Text.

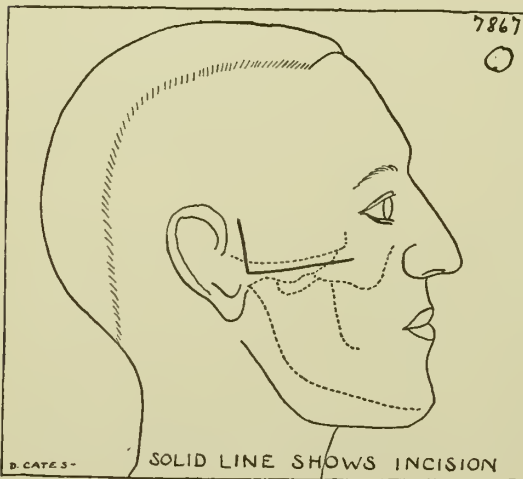


FIGURE 2

suffered osteomyelitis of the left radius, humerus, both tibia and the right temporo-mandibular joint when six years old. The wounds had been healed about

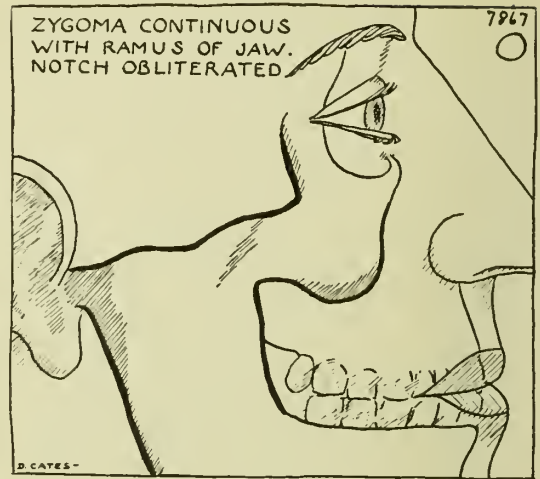


FIGURE 3

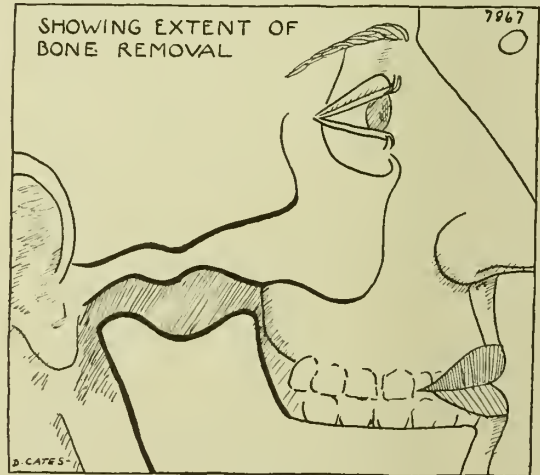


FIGURE 4

three years. She had lived on liquids and soft food pushed in where an upper tooth on left side was undeveloped (Fig. 1).

There was firm, bony ankylosis of the right temporo-mandibular joint and the mandible on this side was somewhat undeveloped. The left molars could be separated slightly but the right ones and the front teeth could not. She spoke indistinctly, was under-sized, but well nourished.

An arthroplasty was performed, using open drop ether anesthetic. A tracheotomy set was kept ready for instant use in case of necessity. A 4 cm. incision was made along right zygomatic process beginning 1.5 cm. anterior to the ear (Fig. 2). The posterior extremity of the incision was extended upward 1.5 cm. and the triangular flap dissected upward. The transverse incision was carried down to the bone and then sub-periosteally downward exposing the site of the temporo-mandibular joint. The mandibular notch was found obliterated, the entire upper end of the ramus, including the coronoid and condyloid processes were firmly ankylosed and continuous with the zyg-

*Read before the Fifth District Dental Society, Atlanta, Ga., April 19, 1932.

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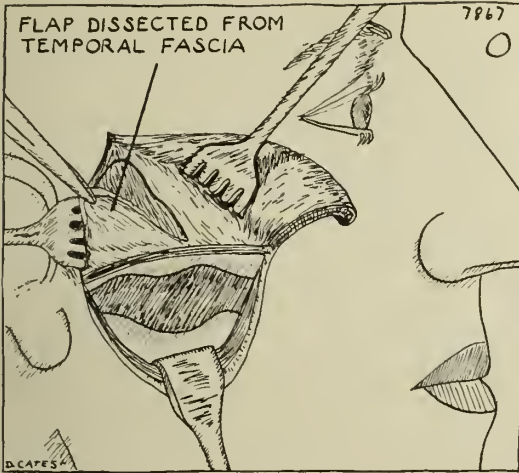


FIGURE 5

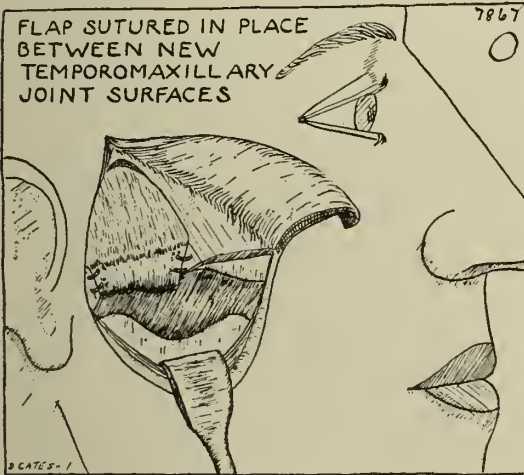


FIGURE 6

matic process which was ill-defined (Fig. 3). The lower border of the zygoma, zygomatic process, arch and tubercle were outlined and then separated with a sharp chisel. About 1.5 cm. of bone was removed from the ramus of the mandible, a mandibular notch cut out and the condyloid process re-shaped and smoothed over (Fig. 4). A fascial flap was reflected downward from the temporal muscle (Fig. 5) and sutured between the newly formed joint surfaces (Fig. 6). The wound was closed with fine, chromic catgut, using fine, black silk for the skin. During the operation the ascending branch of the facial nerve and the blood vessels were protected.

The next day she was suffering very little pain and was able to separate her front teeth nearly 2 cms. At Christmas, twenty days after operation, she was eating a regular diet and told me that she had cracked nuts between her teeth.

The extent to which she was able to open her mouth three months after the operation is shown in Figure 7.



FIGURE 7

See Text.

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SPINAL ANESTHESIA

F. G. Lindemulder, Ann Arbor, Mich. (*Journal A.M.A.*, July 16, 1932), describes the clinical changes that occur during and following spinal anesthesia and some of the sequelae and complications. He also reports two cases in which death occurred several days following the anesthesia. It appeared that the anesthesia was a contributing cause for the deaths. The permanent effects of the drug were seen at necropsy. In one case, the spinal cord was noted to be normal in the cervical region, and in the lower dorsal and lumbar regions definite pathologic changes were noted. It has been said by several observers that there is no irritation in the nervous system following the injection of procaine or its allied drugs and they compare this finding with irritation produced by the inhalation method on the mucous membranes of the bronchi and lungs. However, the author feels that there is a definite toxic effect on the spinal cord and the spinal nerve roots, which shows its effect both clinically and pathologically, the patients usually complaining of pain, and this finding can be explained by the pathologic study of the nerve roots.

SURVEY OF THE HOSPITAL LIBRARIES OF GEORGIA, 1931

CATHERINE POYAS WALKER*
Atlanta

With the hope of working towards the ideal of having every large hospital own its own library with a librarian especially trained in bibliotherapy in charge, and of having city libraries make provision for the ill as well as the healthy by branch libraries or deposits in all hospitals, in charge of a librarian who has specialized in hospital work, this first survey of the Hospital Libraries of Georgia has been compiled.

In March, 1931, a questionnaire was sent to physicians in charge of every Georgia Hospital listed in the American Medical directory of 1929—the latest available. Three were returned unclaimed; twenty-three replies reported no library service; as a manifestation of interest in reading in the hospitals, even the very smallest reports have been included in the survey, while it is hoped that the longer of the thirty-seven reports included may prove suggestive to those interested in the establishment of hospital libraries. The reason given by the city librarians for no hospital work is the old cry of lack of funds.

It is noteworthy that the United States government has set the example for the establishment of patients' libraries in the state of Georgia, with Emory University Hospital following the Federal precedent.

I am deeply indebted to those whose replies have made this first survey of the hospital libraries of Georgia possible.

SURVEY OF THE GEORGIA HOSPITAL LIBRARIES, 1931

(Hospital statistics unchanged from American Medical
Directory of 1929 unless corrected)

FEDERAL AND STATE INSTITUTIONS

ALTO, GA. *State Tuberculosis Sanitarium*: M. F. Haygood, M.D., Superintendent, reports no librarian; nurse delivers books to bed patients; open shelves for ambulatory patients; no city library service; most popular books: Western; separate medical collection; report is for patients' library.

In 1927, at the suggestion of Dr. Edson W. Glidden, superintendent, the Atlanta Federation of Women's Clubs, through the Chairman of Library Extension, Mrs. R. M. Walker, collected 2,324 books for the Alto Library, named Anne Trippe Rambo Library, for the 1927 president, (Mrs. R. K. Rambo). 100 of these books were donated through the Georgia Library Commission. The Atlanta Federation,

with the assistance of other women's clubs, maintains and adds to the Alto library. A branch of the library is in the Children's building.

Therapeutic Value of Books: Dr. Glidden reported the first thing a patient did at Alto was to write home; the second, to ask for a book. Books were a large factor in helping convalescence, and in creating a beneficial state of mind conducive to improvement.

ATLANTA, GA. *Station Hospital U. S. Army*; Fort McPherson. Patients Fourth Corps Area and Post. Catherine P. Walker, Librarian, reports: Libraries are military and general. Ref. and circ. local and thru. Fourth Corps Area; 28,659 vols.; 59 periods., circ., 1930, 17,012; book truck to hospital twice weekly; Hosp. circ., 1930, 2,490. Col. Charles L. Foster, Chief Surgical Service, in charge. Medical library separate.

United States Penitentiary Hospital; McDonough Road. Report by J. G. Wilson, Chief Medical Officer, with additional information by Roland Mulhauser, Librarian, U. S., Penitentiary Library. Books are loaned to hospital from general prison library: 12,000 vols. medical collection additional. Library serves penitentiary, farm and hospital. Book truck to hospital every other day; periods. donated, numbers vary; most popular type of book: Fiction. *Therapeutic Value of Books*: Dr. Wilson says, "I think they have great therapeutic value and that the patient should be allowed to select his own books without censorship."

United States Veterans Hospital, (Formerly No. 48): Peachtree Road. Established 1920. Rebuilt and reopened July 8, 1930. Gen.; 200 beds; outpatient service; graduate nurses, Ethel Huston, Chief Nurse; Dr. E. K. Moore, Clinical Director in Charge; Dr. H. C. Hardagree, Regional Medical Officer in Charge. The librarian, Mrs. William H. MacQuigg, reports: "Any report from the Atlanta Hospital must be a small one as the Library is still too new to have more than its 'first growth'. The Library is still not completely organized, owing to the fact that service has been given since the first day,—technical work being entirely subservient to service.

"There are only 1,800 volumes on the shelves, and 200 more on the way; about 500 will be added before the end of the year. A small library is adequate in this community where there are so many uneducated men. Our object is not to have a large number of books but to make these books enter largely into treatment of patients. That this is being accomplished to some extent is shown by the large number of books lent: in January, 1931—26 working days, 698 books were lent; in February, 1931—23 working days, 687 books were lent. These figures do not include many ward transfers, nor the books read in the library. Many seriously ill are unable to read at all.

"Visits are made regularly to the wards and books lent to bed patients; but every effort is made to encourage reading in the Library itself. The beneficial effects of Library use have been abundantly demonstrated,—the change of environment bringing relief

*Librarian Fourth Corps Area, United States Army, Chairman of American Library Association, Hospital Libraries Committee.

from that unhappy introspection almost always inseparable from illness. In appearance, the Library is unusually attractive . . . furnished with rugs, window drapes and floor lamps . . . patients are always struck with the homelike appearance; it is like a bright, sunny living-room at home, rather than a hospital department. There is nothing institutional about it; rules and regulations are almost absent and books are lent with a system so simple as to be nearly invisible.

"There are frequent expressions of appreciation from patients, one of whom wrote, 'It is a genuine regret that leaving the hospital must terminate the daily, delightful excursion down to the library. This little cranny of the hospital radiates both a soothing and stimulating influence which has meant much to me and I shall miss it greatly'."

AUGUSTA, GA. *United States Veterans Hospital*, (Formerly No. 62). Frances G. A. Coulson, librarian, reports a medical library of about 300 volumes, separate from patients' library, includes about 42 professional journals. Report refers to patients' library: located on second floor of Recreation Building, about 3,600 volumes, seven newspapers; 73 periodical subscriptions, with additional gifts; sheet music and phonograph records circulate from library. Library serves about 600 men, about one-sixth of which are on parole. Of the one-sixth, about three-fourths have city parole. Reading room open from 8 A. M. to 9 P. M.

Periodicals are donated by three Augusta newstands, American Auxiliaries in Macon and Greensboro, by the Boy Scouts, who collect magazines from the schools—gifts are sent from as far as Connecticut and Tennessee.

During 1930, circulation recorded was 4,249 fiction and 1,718 non-fiction—a total of 5,967. This does not include loans among patients or magazines. In addition the librarian has circulated tons of magazines and newspapers.

Therapeutic Value of Books: Mrs. Coulson cites individual cases, where gardening, poetics, ship-models, outdoor books, etc., proved suggestive to patients, encouraging occupation as well as reading.

FORT BENNING, GA. *Station Hospital U. S. Army*: Col. C. J. Manly, M.C., physician in charge; Lieutenant Paul E. Zuyer, officer in charge of library, reports: books carried to patients by soldier; 264 books, purchased by hospital; ward service daily; 8 A. M. to 8 P. M.; most popular books, mystery and travel. *Therapeutic Value of Books*: "Books are undoubtedly the most popular patient activity at this hospital. Men who could never afford to purchase books are given an opportunity to read books which would otherwise not be available to them."

MILLEDGEVILLE, GA. *Milledgeville State Hospital*: (Formerly Georgia State Sanitarium). Dr. R. C. Swint, physician in charge, reports: the library is in charge of a teacher-attendant; books are delivered to bed-patients; name of library, *Woman's Library*; 2,350 volumes donated by Miss Clifton Lyndon, of

Atlanta. Library established 1915. Open four days weekly: 12:30 to 4 P. M. Circ. 200 monthly. Periods, donated, vary. Most popular types of books. Western Northern and Detective. *Therapeutic Value of Books*: "Books and magazines are very helpful to a certain class of patients who like to read."

In addition, Dr. Swint reports: "We have a library of several thousand old volumes in male department, kept by one of the patients. We subscribe for several magazines for the patients."

SAVANNAH, GA. *U. S. Marine Hospital No. 20*: York and Abercorn Streets. John T. Burkhalter, Medical Director, reports: no librarian; books part of hospital equipment; 250 fiction and medical and scientific; periodicals 8; no circulation statistics.

LIBRARIES, HOSPITALS, SANATORIUMS, AND CHARITABLE INSTITUTIONS

AMERICUS, GA. *Americus, Sumter County, Hospital*. Mrs. A. B. Hall, R. N., Supt. reports, hospital owns small library, donated and purchased; open at all times; most popular books, fiction. "We have a number of magazines donated each month. Books and magazines are carried to patients by myself and nurses."

ALBANY, GA. *Carnegie Free Library*, Mrs. Emma W. Menko, Librarian, reports: Feb. 2, 1931: "There is no special work of the library with our hospital. The superintendent and several nurses read from our library, so I suggested sending books for the patients. The Boy Scouts carried them for a while, but the organization is not active at present. I gave some magazines and a few books."

ATHENS, GA. *Fairhaven Tuberculosis Sanitarium*, Princeton Road. Dr. C. O. Middlebrooks, physician in charge, reports books carried to patients by nurses, part of hospital equipment and donated.

ATLANTA, GA. (See also Decatur and Emory) *Battle Hill Sanatorium*, Anderson Ave., S. H. A. municipal and county tuberculous hospital, J. H. Bradfield, M.D., Superintendent, reports: "We have no library, with the exception of such books as are donated by private individuals, churches, etc., and no librarian."

Blackman Health Resort, 2140 Peachtree Road, N. W. Dr. W. W. Blackman reports a small library, purchased by hospital, but no librarian. Most popular religious and novels, detective, and movie magazines. *Therapeutic Value of Books*: "Inspirational books and those acquainting the patient with physiology and hygiene are valuable; certain intelligent patients are helped by popularized psychology when good like Dorseys."

Contagious Disease Hospital, 52 College Street, Dr. James J. Martin, physician in charge. Clara M. Rioridan, Supt. nurses reports: "We have between 75 and 100 books that are worth reading, donated either by patients or their people."

Georgia Baptist Hospital, 450 East Avenue, N. E., Dr. J. B. Franklin, physician in charge, reports: "We have a small library, mostly fiction, for nurses in training."

Grady Memorial Hospital (see Emory University)

AUGUSTA, GA. *Young Men's Library*, Mrs. Elsa J. Johnston, Librarian, donates periodicals to V. B. Hospital.

BAINBRIDGE, GA. *Bainbridge Hospital*, Dr. A. E. B. Alford, physician in charge, reports, "I have a private library of a few thousand books, and allow the few patients who will handle them carefully to read them."

CAIRO, GA. *The Walker Hospital*. Report by Dr. William A. Walker, physician in charge, "We have quite a nice selection of books, owned by the hospital, and kept in reading room."

CEDARTOWN, GA. *Hall-Chaudron Hospital*, Dr. Percy O. Chaudron, physician in charge, reports: "We have quite a number of books on hand, these are given to patients by our nurses, to read. Subscribe to daily paper and several magazines."

COLUMBUS, GA. *Carnegie Library*, Mrs. C. L. Gordy, Librarian, reports, "We have done no special hospital work—only lend books to the nurses, and on special request lend books to patients at Warm Springs. (See also, Warm Springs)"

CUTHBERT, GA. *Carnegie Library*, Mary Ida Domingos, Librarian, reports, "I order books and keep a shelf especially for the hospital nurses to read in their study work. I let nurses get books and magazines for the patients; also friends of the sick take books to them. In fact, I cooperate with the hospital in every way I can. I keep no special record of hospital work."

DECATUR, GA. *Scottish Rite Hospital For Crippled Children*: Dr. J. H. Kite, physician in charge, reports: library is carried to bed patients by teacher; donated, by members of woman's auxiliary of hospital; about 1,000 books; 3 periodicals. Established April 1930; average circ. 30 per month; "most popular, Fairy and Folk Stories, such series as 'Bunny Brown and Sister Sue,' 'Uncle Wiggly,' 'Connie Morgan,' 'Tarzan.' *Therapeutic Value of Books*: Undoubtedly great, but only in the general sense of providing interest in the outside world and taking the patient's attention away from himself. We have observed no particular type as, 'best suited' to a particular disease."

EMORY UNIVERSITY, GA. *Emory University Hospital* ((formerly Wesley Memorial Hospital), A. W. Calhoun Medical Library, M. Myrtle Tye, Librarian, reports, Medical, ref. & circ., 14,500 vols.; 300 periods.; serves faculty, medical students, (Fr. and Sophs. at Emory; Jrs. and Srs. at Grady Hospital, Atlanta); student nurses and individual physicians. Patients' library 500 vols. fiction, travel, biography, poetry; book trucks to wards twice weekly; circ. around 30 or 40 each visit; br. at Grady Hospital, Atlanta, small collection of books, 30 periods.

FITZGERALD, GA. *Carnegie Library*, Louise Smith,

Librarian, reports: "For a number of years we have kept a shelf of books in the hospital for the nurses in training and for the patients—these books were changed at least once a month, or earlier, if the hospital Superintendent requested it. Last year during book week we had a set of shelves built and filled with books suitable for patients recuperating to either read or have read to them by nurses. We add to this shelf whenever it is possible to secure a book for hospital use. A Christmas tree in the Children's room of the library brought donations from the library patrons, (pennies placed in tiny socks), this money was used to purchase books for the children's ward of the hospital. Extra copies of magazines are donated to the hospital."

MILLEDGEVILLE, GA. *Allen's Invalid Home*, Physicians in charge: E. W. Allen and H. D. Allen, Jr. The latter reports the hospital library consists of about 1,500 books, donated and purchased by hospital; 12 periods.; carried to bed patients by volunteer; most popular type of book, current fiction; "Books are merely passed out to various patients and periodicals go directly to sitting rooms."

MILLEN, GA. *The Millen Hospital*, Dr. Cleveland Thompson, physician in charge, reports, "Numerous books, magazines, daily papers are furnished by the hospital."

SANDERSVILLE, GA. *Rawlings Sanitarium*, Dr. F. B. Rawlings, physician in charge, reports: "We have a limited library, probably 125 volumes in our Sanitarium. Patients have full access to all books and quite a few periodicals are taken." Books are part of hospital equipment, some donated and some purchased.

SAVANNAH, GA. *Kiwanis Sunshine Preventorium* unit of Savannah, Tuberculosis Association, R. D. A., Savannah, Ga. Dr. R. V. Martin, physician in charge, reports: 200 books part of hospital equipment, donated.

Oglethorpe Sanatorium, Dr. T. P. Waring, physician in charge, reports: "This is a privately owned hospital. . . . our patients usually furnish their own literature. We have, however, several book cases in nurses' home and hospital from which books are obtained. We are always grateful for any books given us."

STATESBORO, GA. *Van Buren's Sanitarium*, Dr. H. Van Buren, physician in charge, reports: books are carried to patients by volunteers and nurses; periods. 12; hours of library service, 3 P. M. during week. Most popular novels. *Therapeutic Value of Books*: "I think books are all right, provided patient not too ill. Cases convalescing and doing well, books are really a help."

THOMASVILLE, GA. *John D. Archbold Memorial Hospital*, Redden and Gordon Avenue. Report by Dr. Fletcher H. Brooks, Director: books are part of hospital equipment, donated by Woman's board and others; about 174 books; 11 periods; most popular type of books, fiction.

VALDOSTA, GA. *Little-Griffin-Owens-Sanders Hospital*, Dr. Albert F. Saunders, reports: "Occasionally some religious society will distribute literature of various kinds for the grown-ups to read, and sometimes a group of ladies make scrap books for the small folks to 'read' the pictures. I have seen the library idea carried out in other hospitals and it seems to me to be a good idea. I believe the patients are more content to spend the necessary time in bed without grumbling about the hospital service if they are convalescent enough to be fussy. Also there is a good psychological effect on neurotics. Naturally strangers appreciate such a means of whiling away otherwise weary hours."

WARM SPRINGS, GA. *Georgia Warm Springs Foundation, Inc.*, LeRoy W. Hubbard, M.D., Surgeon in Chief, reports: approximately 1,000 vols. donated by patients and friends. "The foundation does not conduct a hospital or sanitarium, but a home for patients who have had an attack of poliomyelitis. The patients are all normal except for their physical handicap. The library is in one of the cottages, and we have no librarian, the patients helping themselves to such books as they desire, and returning same. These books are mostly fiction."

WASHINGTON, GA. *The Mary Willis Library*, Kathleen Colley, Librarian, reports: "The nurses come very often for books for the patients. The library and hospital are only three blocks from each other, so it is easy to co-operate."

Washington General Hospital, Washington Georgia Dr. C. E. Wills, physician in charge, reports: "We are very fortunate in having a free library. The books and periodicals can be taken without restriction by the hospital . . . most of the patients prefer light reading—novels, light short stories, etc."

WAYCROSS, GA. *Atlantic Coast Line Hospital*, Haines Avenue. Dr. K. McCullough, physician in charge, reports nurse carries books to patients; books part of hospital equipment; donated; about 200 volumes; 10 periods: Most popular-fiction, detective. Therapeutic Value: "I think they have a definite place in dealing with convalescents. Have made no observations regarding particular types of books best suited to various diseases."

1645 Peachtree Street, N.W.

TUBERCULOSIS IN TENNESSEE

E. L. Bishop and H. C. Stewart, Nashville, Tenn. (*Journal A. M. A.*, July 30, 1932), call attention to the fact that the Tennessee program of control of tuberculosis as an activity of the state government had its beginning in 1927. This program has been essentially one of field activities, and during the first four years since its inauguration 1,794 clinics have been held, 28,131 examinations made and 5,243 positive cases of tuberculosis found and brought under the active direction of personal physicians. Special field studies of tuberculosis have been in progress during the past two and one-half years.

PROCEEDINGS OF THE HOUSE OF DELEGATES OF THE MEDICAL ASSOCIATION OF GEORGIA

FIRST MEETING—Tuesday, May 17, 1932

The first meeting of the House of Delegates was called to order at the De Soto Hotel, Savannah, Ga., at 2:40 p.m., by the President, Dr. Arthur G. Fort, Atlanta.

Roll Call: The Secretary stated that he held in his hands the signed roll of the following fifty-one delegates and councilors, and moved that this constitute the roll call of this meeting.

M. F. Haygood, Habersham County; James E. Paullin, Fulton County; J. A. Redfearn, Councilor Second District; H. M. Fullilove, Councilor Eighth District; Dan Y. Sage, Fulton County; W. D. Gholston, Madison County; J. C. Patterson, Councilor Third District; W. A. Mulherin, Augusta (Ex-President); R. F. Wheat, Vice-Councilor Second District; C. J. Maloy, Telfair County; H. M. Michel, Richmond County; Marion C. Pruitt, First Vice-President; B. H. Minchew, Ware County; Ralston Lattimore, Savannah (Ex-President); R. V. Martin, Chatham County; J. L. Campbell, Fulton County; S. S. Smith, Clarke County; George W. Fuller, Fulton County; W. A. Selman, Councilor Fifth District; Wm. H. Myers, Councilor First District; W. R. Dancy, Savannah (Ex-President); G. L. Echols, Baldwin County; W. C. McCarver, Burke County; C. W. Roberts, Fulton County; Q. A. Mulkey, Jenkins County; J. E. Penland, Ware County; J. W. Simmons, Glynn County; S. T. R. Revell, Jefferson County; M. M. Head, President-Elect; K. S. Hunt, Councilor Sixth District; G. Lombard Kelley, Richmond County; W. E. Barber, Fulton County; J. B. Kay, Bibb County; O. H. Weaver, Bibb County; J. W. Palmer, Montgomery County; S. B. Malone, Washington County; Grady N. Coker, Cherokee County; W. F. Wells, Fulton County; Frank K. Boland, Fulton County; J. O. Elrod, Forsyth (Ex-President); S. J. Lewis, Councilor Tenth District; G. H. Lang, Chatham County; C. L. Ayers, Councilor Ninth District; J. S. Alsobrook, Walker County; P. L. Williams, Crisp County; F. M. Martin, Randolph County; H. M. Tolleson, Second Vice-President; L. A. Williams, Wilcox County; Hal M. Davison, Fulton County; President Fort and Secretary Bunce.

The motion to accept the roll call was regularly seconded and carried and President Fort declared the House of Delegates duly constituted for the transaction of business.

Appointment of Reference Committee

The President appointed the following gentlemen to serve as a Reference Committee: H. M. Tolleson, Hahira, Chairman; F. M. Martin, Shellman; Grady N. Coker, Canton; W. E. Barber, Atlanta; J. B. Kay, Byron.

Secretary Bunce read an abstract from the By-Laws covering the duties of the Reference Committee.

Report of Officers:

President's Report: Dr. Arthur G. Fort presented the following report:

Gentlemen:

I have attended each District Society meeting one time and two districts twice. The District Societies are in a healthy condition and their programs have been of a high type. I present herewith a copy of each program. It is important that they have a regular date for their meetings and that same be printed in the Journal.

Approximately three weeks have been given to medical meetings. My policy has been to ask the First Vice-President to attend one meeting of each District Society in North Georgia and the Second Vice-President one in each District in South Georgia.

I have attended the ceremonies in Augusta at the unveiling of the tablets in honor of Dr. Paul F. Eve. This memorial was presented by the Polish-American

Medical and Dental Societies in recognition of services rendered by Dr. Eve to their county. Dr. Stewart R. Roberts delivered quite an interesting talk on Dr. Eve at the banquet following the dedication ceremonies. It was a great day for medicine in Georgia.

I have attended the annual meeting of the Chattahoochee Valley Medical Association at Radium Springs where I was the guest of that Association.

I have been honored at many meetings by the presence of the President-Elect and his cooperation has been complete.

The Councilors have been cooperative. It was my duty to appoint two Councilors during the year. Dr. Hunt, formerly Vice-Councilor, to succeed Dr. Marvin Head and Dr. W. A. Selman, Vice-Councilor, to succeed Dr. E. C. Thrash.

I have appointed Dr. John W. Simmons to succeed Dr. M. A. Clark as Parliamentarian.

I have cooperated in Health Week and a representative has been appointed in each county to cooperate with the Parent-Teacher Association.

I have appointed representatives to cooperate in commemorating the Fiftieth Anniversary of Dr. Koch's discovery of the cause of tuberculosis.

I have attended every committee meeting during my term of service, and there have been many.

I attended the American Medical Association.

I will not discuss or report on activities of the Committees but will hear from the Chairman of each.

No report would be complete without proper acknowledgments, at this time, of the wonderful work of our Committee Chairmen. The program speaks for the Scientific Committee—Dr. J. E. Paullin, Chairman. May I suggest here that the Chairman of this Committee serve for two years? Dr. Dan Y. Sage, Chairman, and the Committee on Public Policy and Legislation have had an active year. Medical Defense Committee has suffered the loss of two valuable men and at a time when we needed them. The Council has filled these vacancies as will be explained by their Chairman. Our Chairman of the Hospital Committee has worked diligently. The History Committee made up of Past-Presidents delegated their work to a subcommittee of three—two have passed on and Dr. Frank K. Boland remains. The history, as presented to me, I did not think sufficiently complete, and therefore, withheld it from the press. The Advisory Committee to the Woman's Auxiliary has been confronted with some interesting questions to help solve.

I wish to recommend—

First, provision be made for the Georgia State Dental Society to provide one speaker each year for our program.

Second, that the President of the Medical Association of Georgia appoint one fraternal delegate to the Georgia State Dental Society each year.

Third, that we request that one man be appointed to give a talk each week over radio and that we recommend that the Council appropriate \$5.00 to be paid to him each talk.

Fourth, that the Medical Association of Georgia, cooperating with the Georgia Department of Public Health, provide an article each week for each paper in the State.

Fifth, that untiring efforts be put forth for a change in the Workmen's Compensation Law, increasing the liability to more than \$100 as at present.

Sixth, that we desire our Department of Health eliminated, as largely as possible, from political control and same to have restored its Board as it formally operated.

Seventh, that one day in the year be sponsored as Ether Day. Let's put this day on the map.

Eighth, that you recommend to the Council that the President, in the future, be granted his expenses.

Before closing allow me to here acknowledge my appreciation of the earnest and untiring efforts of our Secretary-Treasurer and his assistant, the Vice-Presidents, the President-Elect, the Councilors and our Com-

mittees, and to Dr. Craig Barrow who has made it possible for me to carry on the past year. I wish to compliment myself on one thing—that is, in having appointed those I did on the Committees. I have been called on to pay respect to three Past-Presidents who have gone to their reward during the past year.

Respectfully submitted,

Arthur G. Fort.

This report was referred to the Reference Committee.

Report of President-Elect: Dr. M. M. Head, Zebulon, presented the following report:

Mr. President and Members of the House of Delegates:

I do not think it is necessary for the President-Elect to make a report, as he is not understood to do anything.

I have attended four or five district meetings, most of them in company with our Honorable President, Dr. Fort. I have not been asked to say a word and think they had good judgement as they would hear nothing.

I have attended both Council meetings and the meetings of the Committee on Scientific Work.

We have had this year some trouble with druggists attempting to prescribe and I hope we can arrange some way to let them know that we are aware they are doing this, that we hope they will discontinue such practices.

This is along the lines that I think we should work for the next twelve months. That is, seeking better legislation for the physicians of Georgia. I hope also that we will be able to put our State Board of Health back as it was, a unit of its own governed by physicians and not by politicians.

I trust that during the next year you will all be in sympathy with me and feel free to offer me a helping hand. I assure you it will be appreciated.

Respectfully submitted,

M. M. Head.

President-Elect.

Report of First Vice-President: Dr. Marion C. Pruitt, Atlanta, presented the following report:

Mr. President and Members of the House of Delegates:

My work during the year has been most pleasant. I have attended two meetings of the Fourth District, one at Warm Springs, the other at LaGrange; the winter meeting of the Sixth District Medical Society at Griffin; the mid-winter meeting of the Eighth District Medical Society at Athens, and both meetings of the Fifth District.

I wish to express my personal appreciation to Dr. Arthur G. Fort, President, for the pleasure of visiting officially these District Meetings. He has been most generous and my work has been a pleasure. I also wish to express my personal appreciation to Dr. Allen H. Bunce, Secretary, for the pleasant association and valuable information and assistance rendered by him.

Respectfully submitted,

M. C. Pruitt,

First Vice-President.

Report of Second Vice-President: Dr. H. M. Tolleson, Hahira, presented the following report:

Mr. President and Members of the House of Delegates:

I have attended one or two meetings each of the Second, Third, Eleventh, and Twelfth District Medical Societies.

I have found these districts wide awake as regards organization, hospitable to their visitors, congenial in their fellowship, and showing a high type of scientific work as evidenced by their programs. In most cases the meetings were well attended.

I wish to thank the President, Dr. Arthur G. Fort, for his kindness in cooperating in every possible way.

I wish to make for your consideration, the following recommendations:

First, that the Medical Association Membership acquaint itself with the new regulations of the Department of Public Health and do all within its power by way of assisting the proper agencies in enforcing same. I wish to call particular attention to the paragraphs dealing with prescribing by druggists for venereal disease, and the advertising for sale supposed remedies for the treatment of same.

Second, that members of the Association make a special effort to cultivate the acquaintance and friendship of the legislators from the various districts and counties with a view towards being in better position to influence their votes in future legislation. Successful legislation, fair and favorable to the medical profession can never be passed without the respect and support of the representatives from the various civil units.

Respectfully submitted,

H. M. Tolleson,

Second Vice-President.

These reports were referred to the Reference Committee.

Report of Parliamentarian: Dr. John W. Simmons, Brunswick, made the following verbal report:

Mr. President and Members of the House of Delegates:

I have prepared no formal report, as I was asked to serve in this capacity only a short time ago. After looking through Roberts' Rules of Order I have decided to allow you to do as you please, but if you get into trouble with the help of this little brown book I will try to untangle you.

Report of Secretary-Treasurer: Dr. Allen H. Bunce, Atlanta, presented the following report:

FINANCIAL STATEMENT.

Receipts.

May 1, 1931, cash on hand	\$ 5,448.30
May 1, 1931, to April 30, 1932. Receipts	14,740.75
Total	\$20,189.05

Disbursements.

May 1, 1931, to April 30, 1932	\$14,091.19
April 30, 1932. Cash on hand	6,097.86
Total	\$20,189.05

DISBURSEMENTS.

From

May 1, 1931, to April 30, 1932.

No.	Description.	Amount.
1551	Dr. C. J. Maloy: Membership dues returned	\$ 7.00
1577	E. K. Large, Postmaster: Postage	30.00
1578	J. A. Redfearn, M. D.: Expenses as Councilor for the Second District	25.00
1579	M. M. McCord, M. D.: Expenses incurred as Councilor for the Seventh District	10.60
1580	Alliance Printing Co.: Printing and mailing 2,125 copies of the April, 1931, issue of the Journal	357.06
1581	Allen H. Bunce, M. D.: Salary as Secretary-Treasurer for April, 1931	150.00
1582	H. L. Rowe: Salary as Executive Secretary for April, 1931	175.00
1583	Southern Bell Telephone & Telegraph Co.: Telephone account to April 11, 1931	10.05
1584	Mrs. R. H. Duncan: Typing a section of the History of Medicine in Georgia	5.95
1585	G. Y. Moore, M. D.: Expenses incurred as President during March and April, 1931	40.00
1586	F. A. Smith, M. D.:	

Payment on attorney's fee in the suit of Jerome A. Jones vs. Dr. F. A. Smith

1587	Mrs. Irene H. Snyder: Payment of expenses and on account for reporting and transcribing proceedings of the 82nd annual session of the Association	100.00
1588	Miss Mary Robinson: Payment of expenses and on account for reporting and transcribing surgical section of the 82nd annual session of the Association	100.00
1589	H. L. Rowe: Room rent and special help during the 82nd annual session of the Association held at the Biltmore Hotel, Atlanta, May 12-15, 1931	40.00
1590	M. M. Head, M. D.: Expenses as Councilor for the Sixth District	16.50
1591	Mrs. Irma Emmitt: Securing subscriptions for History of Medicine in Georgia and help at Registration Desk, May 12, 13, 14, 15, 1931	17.53
1592	Leigh Sign & Advertising Co.: Painting 38 signs for use at Biltmore Hotel, Atlanta, May 12-15, 1931, 82nd annual session of Association	38.60
1593	Western Union Telegraph Co.: Telegraph account for April, 1931	67.22
1594	Virgil W. Shepard: Tables and backgrounds for commercial and scientific exhibitors and ten floodlights installed for use during the 82nd annual session of the Association	.54
1595	Fulton Brothers Electric Co.: Public address amplifying system (loud speaker) installed and used during the 82nd annual session of the Association (Refunded by the Fulton County Medical Society)	183.00
1596	Auld's, Inc.: "Badge of Service" for President, G. Y. Moore, M. D., 1930-31	100.00
1597	J. L. Campbell, M. D.: Expenses incurred as Chairman of Cancer Commission	3.34
1598	Wolverine Art Shops: Seven hundred and fifty badges for use during the 82nd annual session of the Association	8.80
1599	Southern Bell Telephone & Telegraph Co.: Telephone account to May 11, 1931	55.84
1600	Atlanta-Biltmore Hotel: House boy, woodwork by carpenter and electrician in the ballroom during 82nd annual session of the Association	7.30
1601	Southern Engraving Co.: Invoices 2726-2835-2900-2915, cuts for illustrations	46.25
1602	Southern Press Clipping Bureau: News clippings for April, 1931	45.01
1603	J. N. Reisman: Rent for May, 1931	5.00
1604	The Letter Shop: Multigraphing letters to delinquent members, county secretaries and delegates to the 82nd annual session	21.50
1605	Jno. C. Grant: Watchman for commercial exhibitors, May 11-14, 1931, during 82nd annual session of Association	14.74
1606	E. C. Thrash, M. D.:	16.00

	Payment on expenses as delegate to the American Medical Association, Philadelphia, June 8-12, 1931	100.00		1626—J. F. Thompson Engraving Co.: One thousand letterheads and 1,000 envelopes for Dr. Arthur G. Fort, President (official stationery)	21.50
1607—	Wm. H. Myers, M. D.: Payment on expenses as delegate to the American Medical Association, Philadelphia, June 8-12, 1931	100.00		1627—Addressograph Sales Agency: Addressograph ribbon	.93
1608—	O. H. Weaver, M. D.: Payment on expenses as delegate to the American Medical Association, Philadelphia, June 8-12, 1931	100.00		1628—Alliance Printing Co.: Printing and mailing 2,150 copies of 72-page, June, 1931, issue of Journal	425.40
1609—	Alliance Printing Co.: Printing and mailing 2,200 copies of May, 1931 issue of Journal	\$359.83		1629—Allen H. Bunce, M. D.: Salary as Secretary-Treasurer for June, 1931	150.00
	One thousand programs for Association and Auxiliary	93.50		1630—H. L. Rowe: Salary as Secretary-Treasurer for June, 1931	175.00
	Two hundred special programs for Auxiliary	9.50		1631—E. K. Large, Postmaster: Postage	30.00
	One thousand registration cards	5.00		1632—Western Union Telegraph Co.: Wires in reference to death and funeral of Dr. E. C. Thrash, Past President of Association	12.59
	One thousand 4-page folder-outline of History	14.00		1633—American Medical Association: One copy of the twelfth edition of the American Medical Directory	12.00
	One thousand subscription blanks for History	4.50	486.33	1634—E. K. Large, Postmaster: Postage for mailing letters to members of the Association in reference to bill to abolish State Board of Health (Committee on Public Policy and Legislation)	30.00
1610—	E. K. Large, Postmaster: Postage	30.00		1635—E. K. Large, Postmaster: Postage and for additional postage for Committee on Public Policy and Legislation	30.00
1611—	Allen H. Bunce, M. D.: Salary as Secretary-Treasurer for May, 1931	150.00		1636—E. K. Large, Postmaster: Postage for mailing letters and literature for Committee on Public Policy and Legislation	30.00
1612—	H. L. Rowe: Salary as Executive Secretary for May, 1931	175.00		1637—Southern Engraving Co.: Invoices numbers 2553, 3,360, cuts for illustrations	6.81
1613—	Dr. Chas. M. Rosser, Dallas, Texas: Expenses attending the 82nd annual session of the Association, May 13-15, 1931, invited guest	100.00		1638—Southern Bell Telephone & Telegraph Company: Telephone account for July, 1931	8.35
1614—	Mrs. Irene H. Snyder, Chicago: Balance of account for expenses, reporting and transcribing proceedings of the House of Delegates, minutes of the Council and proceedings of the general meetings of the 82nd annual session of the Association, May 12-15, 1931	362.10		1639—Alliance Printing Co.: Printing and mailing 2,150 copies of the July, 1931, issue of the Journal	354.55
1615—	Western Union Telegraph Co.: Telegraph account for May, 1931	2.00		1640—J. N. Reisman: Rent for August, 1931	20.43
1616—	E. K. Large, Postmaster: Deposit for mailing Journal	25.00		1641—The C. A. Dahl Co.: Floral design for Dr. E. C. Thrash	10.00
1617—	Miss Mary Robinson, Raleigh, N. C.: Balance account for expenses, reporting and transcribing discussions on papers in the Surgical Section of the 82nd annual session of the Association, May 13-15, 1931	45.46		1642—Allen H. Bunce, M. D.: Salary as Secretary-Treasurer for July, 1931	150.00
1618—	Arthur G. Fort, M. D.: Honorarium as President for 1931-32	150.00		1643—H. L. Rowe: Salary as Executive Secretary for July, 1931	175.00
1619—	Cowsert Printing Co.: Five hundred letterheads delivered to Strickland Letter Service (History of Medicine in Georgia)	2.50		1644—E. K. Large, Postmaster: Postage for mailing letters to members in reference to State Board of Health and Workmen's Compensation Act	30.00
1620—	J. N. Reisman: Rent for June and July, 1931	40.86		1645—E. K. Large, Postmaster: Postage	30.00
1621—	The Letter Shop: Multigraphing 140 letters to members of the House of Delegates	2.50		1646—M. M. McCord, M. D.: Expenses as Councilor for Seventh District	10.70
1622—	Southern Engraving Co.: Invoices numbers 3076, 3077, cuts for illustrations	12.22		1647—Western Union Telegraph Co.: Telegraph account for July, 1931, Committee on Public Policy and Legislation	5.60
1623—	Southern Bell Telephone & Telegraph Company: Telephone account for June, 1931	6.00		1648—Southern Press Clipping Bureau: News clippings for July, 1931	5.00
1624—	Southern Press Clipping Bureau: News clippings for May and June, 1931	10.00		1649—Atlanta Envelope Co.: Ten thousand envelopes for mailing Journal	\$40.00
1625—	Lester Book & Stationery Co.: Typewriter ribbon, pencils and paste	4.50		Two thousand envelopes for	

	Committee on Public Policy and Legislation, rush order	8.40—	48.40		the September, 1931, issue of the Journal	339.28
1650—	The Letter Shop: Multigraphing two sets of letters to members and others for Committee on Public Policy and Legislation		16.60	1672—	Alliance Printing Company: 2,000 membership cards for 1932	16.00
1651—	The C. A. Dahl Co.: Floral design for Dr. Wm. R. Dancy's mother		10.33	1673—	Benj. F. Stovall: Multigraphing copies of letters from Dr. Wm. C. Woodward in reference to State Board of Health for Committee on Public Policy and Legislation	4.60
1652—	Alliance Printing Co.: Ten thousand envelopes and 10,000 letterheads		69.00	1674—	E. K. Large, Postmaster: Deposit for mailing the Journal	25.00
1653—	Benj. F. Stovall: Multigraphing five sets of letters to members and officers, newspapers and civic clubs in reference to State Board of Health and Workmen's Compensation Act		67.65	1675—	Southern Bell T. & T. Company: Telephone for September, 1931, \$6.00; long distance toll for Committee on Public Policy and Legislation, \$9.75. Total	15.75
1654—	Wm. H. Myers, M. D.: Telegrams in reference to State Board of Health for Committee on Public Policy and Legislation		3.25	1676—	Addressograph Sales Agency: 500 B. alloy plates and ribbon for addressograph	2.60
1655—	Alliance Printing Co.: Printing and mailing 2,150 copies of the August, 1931, issue of the Journal		354.00	1677—	Allen H. Bunce, M.D.: Salary as Secretary-Treasurer for September, 1931	150.00
1656—	Alliance Printing Co.: Six thousand letterheads and 6,000 envelopes for committees and officers		\$50.66	1678—	H. L. Rowe: Salary as Executive Secretary for September, 1931	175.00
	One thousand reprints for Dr. Chas. M. Rosser, Dallas, Texas, invited guest	35.50—	86.16	1679—	Southern Press Clipping Bureau: News clipping for September, 1931	5.00
1657—	Southern Bell Telephone & Telegraph Company: Telephone account to August 11, 1931		\$6.00	1680—	The Letter Shop: Multigraphing letters to secretaries of county societies to secure subscriptions to History of Medicine in Georgia	2.50
	Long distance telephone toll for the Committee on Public Policy and Legislation	14.50—	20.50	1681—	J. N. Reisman: Rent for October, 1931	20.43
1658—	American Surety Co. of N. Y.: Premium on surety bond No. 237072-D from September 6, 1931, to September 6, 1932, for H. L. Rowe		2.50	1682—	Lester's, Inc.: 150-page Journal for registering names of members and two boxes of typewriter paper	9.30
1659—	Two-Cent Letter Co.: Multigraphing Letters for Committee on Public Policy and Legislation		2.60	1683—	Miss Annie Jacks: Commission on contract for advertising	6.25
1660—	Allen H. Bunce, M.D.: Salary as Secretary-Treasurer for August, 1931		150.00	1684—	Western Union Telegraph Company: Telegraph account for September, 1931	.85
1661—	H. L. Rowe: Salary as Executive Secretary for August, 1931		175.00	1685—	The Letter Shop: Multigraphing letters sent to delinquent members in name of Dr. Arthur G. Fort, President	3.00
1662—	Western Union Telegraph Co.: Telegraph account for August, 1931		.45	1686—	E. K. Large, Postmaster: Postage	30.00
1663—	Drs. Bunce, Landham and Klugh: Telephone calls for the Association charged to Walnut 5964		.90	1687—	Alliance Printing Company: Printing and mailing 2,150 copies of the October, 1931, issue of the Journal	325.70
1664—	Southern Engraving Co.: Invoices numbers 3453-4, cuts for illustrations		57.87	1688—	Southern Bell T. & T. Company: Telephone account for October, 1931	6.00
1665—	Lester's, Inc.: Gem clips, typewriter ribbon, pencils and wrapping paper		5.90	1689—	J. N. Reisman: Rent for November, 1931	20.43
1666—	Postal Telegraph-Cable Co.: Telegraph account for Committee on Public Policy and Legislation		7.16	1690—	Allen H. Bunce, M.D.: Salary as Secretary-Treasurer for October, 1931	150.00
1667—	J. N. Reisman: Rent for September, 1931		20.43	1691—	H. L. Rowe: Salary as Executive Secretary for October, 1931	175.00
1668—	Benj. F. Stovall: Furnishing stock and multigraphing cards sent to delinquent members		\$4.30	1692—	Southern Engraving Company: Invoice No. 3788, cuts for illustrations	19.91
1669—	Southern Press Clipping Bureau: News clipping for August, 1931		5.00	1693—	Southern Press Clipping Bureau: News clippings for October, 1931	5.00
1670—	E. K. Large, Postmaster: Postage		30.00	1694—	Western Union Telegraph Company: Telegraph account for October, 1931	1.50
1671—	Alliance Printing Company: Printing and mailing 2,150 copies of			1695—	E. K. Large, Postmaster: Postage	30.00
				1696—	Miss Annie Jacks: Commission on advertising	13.50
				1697—	Miss Ethlene Hale: Special stenographic work	24.80
				1698—	E. K. Large, Postmaster: Postage	30.00
				1699—	E. K. Large, Postmaster:	

	Deposit for mailing the Journal.....	25.00		porting members and officers, inserting and stamping Christmas cards for President and President-Elect.....	3.40
1700—	Benj. F. Stovall: Multigraphing letters in reference to History of Medicine in Georgia.....	2.25	1725—	Southern Press Clipping Bureau: News clippings for December, 1931..	5.00
1701—	Alliance Printing Company: Printing and mailing 2,150 copies of the November, 1931, issue of the Journal.....	308.60	1726—	Miss Annie Jacks: Commission on advertising.....	16.50
1702—	Southern Bell T. & T. Company: Telephone account for November, 1931	6.00	1727—	E. K. Large, Postmaster: Postage.....	30.00
1703—	Atlanta Envelope Company: 15,000 envelopes for mailing the Journal.....	57.75	1728—	Alliance Printing Company: Printing and mailing 2,200 copies of the January, 1932, issue of Journal	304.94
1704—	Underwood Typewriter Company: Repairing typewriter.....	12.00	1729—	Southern Bell T. & T. Company: Telephone account for January, 1932	6.00
1705—	Allen H. Bunce, M.D.: Salary as Secretary-Treasurer for November, 1931.....	150.00	1730—	Alliance Printing Company: 2,000 copies of Radio Waves, \$8.75; 5,000 slips for advertising, \$8.75; ten volumes of 1931 Journals (bound), \$14.50.....	32.00
1706—	H. L. Rowe: Salary as Executive Secretary for November, 1931.....	175.00	1731—	Southern Blue Print Company: 200 blue prints of floor space in Hotel DeSoto, Savannah, to be used for commercial exhibits during 83rd annual session, May 17-20, 1932.....	22.00
1707—	Bryan, Middlebrooks & Carter, Attys.: Attorney's fee for A. S. Bradley in suit of Mrs. Douglas D. Boatwright vs. Dr. R. C. Franklin, Swainsboro, \$200; transportation and other expenses for Grover Middlebrooks, Atty., \$21.03. Total.....	221.03	1732—	The Letter Shop: Multigraphing letters to county secretaries with signature of Doctor Fort; also letters to hospitals in reference to news items and ads.....	4.00
1708—	The Letter Shop: Multigraphing letters for Dr. Arthur G. Fort sent to county secretaries in reference to History, letters in reference to Directory and notices to delinquent members.....	6.75	1733—	Bryan, Middlebrooks & Carter, Attys.: Retainer as attorneys for the Association for the year 1932.....	1,250.00
1709—	Addressograph Sales Agency: Refacing platen on addressograph.....	.83	1734—	Allen H. Bunce, M.D.: Salary as Secretary-Treasurer for January, 1932.....	150.00
1710—	J. N. Reisman: Rent for December, 1931.....	20.43	1735—	H. L. Rowe: Salary as Executive Secretary for January, 1932.....	175.00
1711—	Southern Press Clipping Bureau: News clippings for November, 1931..	5.00	1736—	Barnes Advertising Service: Multigraphing letters for Dr. Jas. E. Paullin, Chairman of Committee on Scientific Work to mail to members for titles of papers for program at the 83rd annual session of Association; also letters to prospective commercial exhibitors.....	3.75
1712—	Lester's, Inc.: T. W. ribbon, erasers and letter file....	1.60	1737—	Western Union Telegraph Company: Telegraph account for January, 1932	2.21
1713—	C. L. Ayers, M.D.: Expenses incurred as Councilor for Ninth District.....	14.15	1738—	Southern Engraving Company: Invoice No. 4300, cuts for illustrations	6.93
1714—	E. K. Large, Postmaster: Postage for mailing Christmas cards for President and President-Elect.....	30.00	1739—	Southern Press Clipping Bureau: News clippings for January, 1932....	5.00
1715—	Alliance Printing Company: 300 Reprints for Dr. Jas. B. Herrick, Chicago, invited guest of the Abner W. Calhoun Lectureship Committee..	28.50	1740—	Frank A. Hooper, Jr., Atty.: Services for the Committee on Public Policy and Legislation during 1931 session of the General Assembly of Georgia.....	50.00
1716—	Southern Engraving Company: Invoice No. 4102, cut for illustration in article by Dr. J. C. Massee, Associate Editor.....	4.64	1741—	Lester's, Inc.: Pencils, rubber bands, typewriter ribbon, folders, twine, index cards, Gem clips and paste.....	9.05
1717—	Southern Bell T. & T. Company: Telephone account for December, 1931	6.00	1742—	E. K. Large, Postmaster: Postage.....	30.00
1718—	Allen H. Bunce, M.D.: Salary as Secretary-Treasurer for December, 1931.....	150.00	1743—	Miss Annie Jacks: Commission on advertising.....	14.50
1719—	H. L. Rowe: Salary as Executive Secretary for December, 1931.....	175.00	1744—	Alliance Printing Company: Printing and mailing 2,000 copies of the January, 1932, issue of the Journal	301.88
1720—	Alliance Printing Company: Printing and mailing 2,200 copies of the December, 1931, issue of the Journal.....	318.72	1745—	J. N. Reisman: Rent for February and March, 1932..	40.86
1721—	Alliance Printing Company: Printing 2,200 pink slips in reference to dues.....	8.75	1746—	The Letter Shop: Multigraphing letters to doctors in Sixth District for Committee on Public Policy and Legislation; Letters to Alabama, Florida, North Carolina and South Carolina hospitals for ads, and letters in name of Dr. Dan Y. Sage to officers of county societies and delinquent members.....	6.65
1722—	J. F. Thompson: 2,000 Christmas cards for President and President-Elect.....	44.00			
1723—	J. N. Reisman: Rent for January, 1932.....	20.43			
1724—	The Letter Shop: Multigraphing letters to county secretaries and enclosing blanks for re-				

1747—Southern Engraving Company: Invoices Nos. 4484-4485-4486, cuts for illustrations	44.48	1773—Western Union Telegraph Company: Telegraph account .....	.30
1748—Southern Bell T. & T. Company: Telephone acct. for February, 1932.....	7.15	1774—Southern Press Clipping Bureau: News clippings for March, 1932.....	5.00
1749—E. K. Large, Postmaster: Deposit for mailing the Journal.....	25.00	1775—Lester's, Inc.: Yellow second sheets, carbon, type- writer ribbon and paper.....	9.80
1750—E. K. Large, Postmaster: Postage	30.00	1776—J. N. Reisman: Rent for April, 1932.....	20.43
1751—Allen H. Bunce, M.D.: Salary as Secretary-Treasurer for Feb- ruary, 1932	150.00	1777—E. K. Large, Postmaster: Postage	30.00
1752—H. L. Rowe: Salary as Executive Secretary for February, 1932	175.00	1778—Miss Annie Jacks: Commission on advertising contract....	2.25
1753—E. K. Large, Postmaster: Postage	30.00	1779—Miss Anna Thurmond: Stenographic work for Dr. J. L. Camp- bell, Chairman of Cancer Commission	9.90
1754—Addressograph Company: Ribbon for addressograph .....	.93	1780—J. Cox Wall, M.D.: Expenses incurred as Councilor for Twelfth District	8.75
1755—Alliance Printing Company: 250 Reprints for Dr. J. C. Massee, Associate Editor	9.50	1781—Wm. H. Myers, M.D.: Payment on expenses to 83rd annual session of American Medical Associa- tion as delegate.....	100.00
1756—Gresham's: Floral wreaths for Dr. M. A. Clark and Dr. W. Z. Holliday, Ex-Presi- dents of Association	20.60	1782—C. W. Roberts, M.D.: Payment on expenses to 83rd annual session of American Medical Associa- tion as delegate.....	100.00
1757—Southern Press Clipping Bureau: News Clippings for February, 1932....	5.00	1783—O. H. Weaver, M.D.: Payment on expenses to 83rd annual session of American Medical Associa- tion as delegate.....	100.00
1758—Massachusetts Bonding and Insurance Company: Premium on surety bond No. F-99019 for Dr. Allen H. Bunce.....	7.50	May 4, 1931—Check H. C. Sharpe, Alston, returned unpaid—paid later.....	7.00
1759—Miss Annie Jacks: Commission on Advertising	3.75	May 21, 1931—Check Wm. T. Smith, Tif- ton, returned unpaid—paid later.....	7.00
1760—S. J. Lewis, M.D.: Expenses as Councilor for Tenth District	20.00	January 15, 1932—Check C. J. Maloy, Helena, returned unpaid—paid later..	42.00
1761—Wm. H. Myers, M.D.: Expenses as Councilor for First District	29.00	February 1, 1932—Check J. L. Tyre, Screven, returned unpaid—paid later.....	7.00
1762—Alliance Printing Company: Printing and mailing 2,000 copies of the March, 1932, issue of Journal....	288.75	Fulton National Bank-Exchange	8.95
1763—Alliance Printing Company: 100 Reprints for Dr. J. L. Campbell, Chairman Cancer Commission, "Geor- gia's Facilities for the Diagnosis and Treatment of Cancer".....	5.50	Total	\$14,091.19
1764—Atlanta Envelope Company: 3,000 Letterheads and 3,000 Enve- lopes for Committees.....	30.30	<i>Report of Council by the Chairman: Dr. C. L. Ayers, Toccoa, presented the following report:</i> Mr. President and Members of the House of Dele- gates: The Council desires to submit the following report: There have been two meetings of the Council since the last Annual Session of the Association. The first was held at the Academy of Medicine, Atlanta, Ga., on July 10, 1931. Nine of the Districts were represented at this meeting. Each Councilor made a report on the membership and conditions in his district. The Secretary-Treasurer gave a report of the finan- cial status of the Association. Dr. W. A. Selman was appointed as Chairman of the Publication Committee to succeed Dr. E. C. Thrash, deceased. Drs. M. M. Head, J. A. Redfearn, and Cleveland Thompson were appointed as a special committee to write memorial resolutions in reference to the death of Dr. E. C. Thrash. Reports were made by the President and President- Elect of their visits to County and District Society meetings. Motion carried to appoint the President, Dr. Arthur G. Fort; President-Elect, Dr. M. M. Head, and Chair- man of Council, Dr. C. L. Ayers, as a Special Finance Committee of the Council to direct the expenditure of funds for the publication of the History of Medicine in Georgia. Motion carried to advance or underwrite the sum of \$500.00 as an initial payment on the printing and binding of the History of Medicine in Georgia as com- piled. Motion carried to authorize the Committee on Public Policy and Legislation to use all available means	
1765—Southern Bell T. & T. Company: Telephone account	7.45		
1766—The Letter Shop: Multigraphing 1,232 letters in name of Dr. M. M. Head, President-Elect. Sent to delinquent members and officers of County Societies, \$5.75; Letters in name of Dr. A. G. Fort to doctors in reference to organizing Woman's Auxiliaries, \$2.25; Letters in name of Dr. A. G. Fort in refer- ence to Health Education Week, \$3.25. Total	11.25		
1767—Southern Engraving Company: Invoices Nos. 4681-4756, cuts for illustrations	16.99		
1768—Allen H. Bunce, M.D.: Salary as Secretary-Treasurer for March, 1932	150.00		
1769—H. L. Rowe: Salary as Executive Secretary.....	175.00		
1770—E. K. Large, Postmaster: Postage	30.00		
1771—C. L. Ayers, M.D.: Expenses incurred as Councilor for the Ninth District	12.50		
1772—Miss Annie Jacks: Commission on advertising contract..	13.50		

to defeat the bill then pending before the General Assembly of Georgia to abolish the State Board of Health and substitute therefor a New Department of Health to be under the supervision of a "Director of Public Health".

Motion carried to adopt the resolutions as read and submitted by Dr. Arthur G. Fort, President, condemning the section of a bill, known as the "Reorganization Bill", which relates to the State Board of Health and provides for a substitute thereof when abolished. Said bill at that time was pending before the House of Representatives.

The second meeting of the Council was held at the Academy of Medicine, Atlanta, Ga., on March 23, 1932.

Eleven Councilors were present at this meeting and made reports on membership and conditions regarding medical affairs in their individual districts.

The Secretary-Treasurer gave a report of the financial condition of the Association.

Motion carried to authorize Dr. Arthur G. Fort, President, to appoint physicians in the various counties of the State to advise and assist the Congress of Parents and Teachers in its "Summer Round-Up of the Children—A Health Activity of the Congress".

After a lengthy discussion of the advisability of making a reduction of the dues of the Association a motion was made and carried to authorize the President, Dr. Fort, to send out letters to the members of the Association advising them of the necessity of the dues remaining as at present and thereby avoiding crippling the efficiency of the Association, it being found that the Medical Defense feature could not be continued as at present, if dues were reduced.

Motion carried to authorize Dr. Arthur G. Fort, President, to direct all publicity for the Association in reference to the "Koch Semicentennial", in honor of Dr. Robert Koch, discoverer of the B. tuberculosis March 24, 1882, in Berlin, Germany. The publicity of the Association will be in cooperation with the National Tuberculosis Association and others.

Motion carried to approve a call by Dr. Arthur G. Fort, President, of all members of the Committee on History, which includes all Ex-Presidents and officers of the Association, to meet in Savannah during the next Annual Session of the Association, May 17-20, and to elect members of the Sub-Committee on History to succeed Drs. E. C. Thrash and M. A. Clark, deceased, and to transact such other business in reference to the History of Medicine in Georgia as may properly be handled by the committee.

Dr. James E. Paullin, Chairman of the Committee on Scientific Work, gave a report of its activities and read a copy of the program for the next Annual Session of the Association.

Dr. Dan Y. Sage, Chairman of the Committee on Public Policy and Legislation, gave a report on the work by the Committee during the last session of the General Assembly of Georgia. The Chairman explained the necessity of such laws as relate to: sterilization, workmen's compensation, protection of hospitals and attendants against transient patients injured in accidents or otherwise, also to prescribe regulations for correct filling and filing of physicians' prescriptions by druggists.

There was a liberal discussion regarding the inadequate features in the past of Georgia laws to curb the activities of illegal practitioners, and the Council urges the Medical Association of Georgia to throw its full strength to the proper authorities in an effort to stamp out this undesirable condition.

Dr. T. F. Abercrombie tendered to the Association the use of the time of the Georgia Department of Public Health for radio talks, which is fifteen minutes each week.

Motion carried to approve the program of the Committee on Public Policy and Legislation for Health Education Week in the small cities and rural districts of the State.

Motion carried to approve of the work being carried on by the Georgia Department of Public Health.

Motion carried to appoint Dr. James E. Paullin, Chairman, Dr. Dan Y. Sage, Dr. T. F. Abercrombie on a committee with representatives of the Emory University School of Medicine and the University of Georgia Medical Department to prepare programs and continue the Extension Work for Postgraduate Courses in the State this year.

Motion carried to endorse the action of the Secretary-Treasurer in his solicitation for help, by members, to secure advertising for the Journal by sending out with other mail little slips in reference to advertising.

Motion carried to elect the following as members of the committee on Medical Defense: Dr. Frank K. Boland to succeed Dr. M. A. Clark, deceased, term expires in May, 1933; Dr. J. O. Elrod to succeed Dr. E. C. Thrash, deceased, term expires in May, 1936.

Respectfully submitted,

C. L. Ayers,

Chairman of Council.

Reports of Committees:

Committee on Scientific Work: Dr. James E. Paullin, Atlanta, Chairman, presented the following report:

Mr. President and Members of the House of Delegates:

The Committee on Scientific Work desires to submit the following report:

First, the report insofar as it relates to the present meeting of the State Association comprising the Scientific program is before you.

Second, in cooperation with representatives from the University of Georgia, Emory University and the State Department of Public Health an extension course of medical instruction has been organized for the coming summer. Beginning at Valdosta the week of June 13th and ending the week of August 1st at Rome. This provides eight weeks of postgraduate instruction which will be conducted in different sections of the State.

We believe that extension courses provided as above mentioned are of considerable value and that it should be encouraged by the Medical Association of Georgia.

Respectfully submitted,

James E. Paullin, *Chairman,*

J. C. Patterson.

Arthur Fort.

Allen H. Bunce.

Motion carried to adopt the report of the Committee on Scientific Work.

Committee on Public Policy and Legislation: Dr. Dan Y. Sage, Atlanta, Chairman, presented a report.

Committee on Medical Defense: Dr. Frank K. Boland, Atlanta, Chairman, presented the following report:

The Committee on Medical Defense met at the DeSoto Hotel, May 17, 1932, with the following members present: Drs. Frank K. Boland, William A. Mulherin, J. O. Elrod, C. L. Ayers, Allen H. Bunce.

A resolution was passed regretting the decease of two valuable members of the committee who died during the past year, Dr. M. A. Clark, Chairman, and Dr. E. C. Thrash. Doctor Clark had been chairman of the committee ever since its organization in 1916.

The report of the attorneys, Bryan, Middlebrooks, and Carter, was read, and is included as a part of this report. The attorneys' report shows that thirteen cases were handled during the past fiscal year, as follows:

No change in status.....	1
Mistrial	1
Settled for defendant.....	1
Dismissed by plaintiff.....	1
Non-suit	1
In Supreme Court of Georgia.....	1
To be tried.....	7

The total amount of outstanding suits given by the attorneys is \$184,000, but this does not include every suit. During the past sixteen years of the existence of this committee, the members of the Association have been defended against more than \$3,000,000 in suits, without the loss of a single suit.

Of \$3,000 appropriated by the Association for the work of the committee for the year, checks aggregating \$1,571.03 have been paid out to date, but there are yet outstanding bills for attorneys' fees which have not been presented. The committee asks that the appropriation for its work for the next year be continued at \$3,000. On account of the importance of this work to every member, and in order to carry out the other important work of the Association, the committee hopes there will be no effort made to reduce the dues of the Association.

The members of the Association do not seem to be familiar with the method of seeking the protection of the Association in damage suits, and bring upon themselves needless difficulties and expense. Therefore, a motion was passed that Section 5 of Chapter VI of the By-Laws be read in open meeting, and that all Councilors and County Secretaries be urged to call the attention of the members to the provision of this section.

The last paragraph of Section 5 states that: "The Committee on Medical Defense may also, at its discretion, arrange to prosecute illegal practitioners in the State of Georgia, and assist in the enforcement of the Medical Practice Act of this State."

Inasmuch as illegal practitioners in Georgia are not being prosecuted, the following resolution was passed by the committee:

RESOLVED: That each councillor be active in determining violations of illegal practice in his district and that he report same to the Committee on Medical Defense, which committee shall take the proper steps to enforce the Medical Practice Act.

The chairman of the committee was instructed to thank the Association's attorneys not only for their highly efficient work in medical defense, but also for much other assistance in legal matters and courtesies shown the Association, and individual members during the year.

Respectfully submitted,

F. K. Boland, Chairman.

William A. Mulherin.

J. O. Elrod.

C. L. Ayers.

Allen H. Bunce.

Committee on Medical Defense.

This report was referred to the Council.

Committee on Hospitals: Dr. Grady N. Coker, Canton, Chairman, presented the following report: Mr. President and Members of the House of Delegates:

I shall not attempt to report much action on the part of the committee, but to give a few observations and worthwhile recommendations in regard to the hospital situation in the State of Georgia. During the past year several of our large hospitals have had to partly close on account of business conditions and financial losses.

A move is being sponsored by the American Hospital Association, the American Medical Association, American Legion and Veterans' Bureau, in regard to having disabled veterans with non-service connected disabilities housed in non-government owned hospitals throughout the country. The hospitals in our State reported 572 beds available last year for the immediate treatment of World War Veterans. It will take necessary Federal legislation to make this move possible, so we should indorse the movement that is already started. Throughout the United States last year there were 28,333 beds available to take care of the sick and disabled World War Veterans in the civil hospitals or non-government owned hospitals. The

disabled veteran should be placed in a position to be cared for properly in the hospital of his choice and near his home and family.

The hospitals in the State of Georgia are losing thousands of dollars in the medical care of workman's compensation cases. Our present workman's compensation law should be amended, increasing the period of time and treatment and the amount of compensation for the doctor and hospital in compensation cases.

The hospitals in our State are not required by law, but are almost forced to take care of all the automobile accident cases. Over one hundred thousand dollars were lost last year in this type of cases. The following measures are necessary to relieve the hospitals of these financial losses:

1. A compulsory automobile liability insurance requiring owners to carry insurance against personal injuries and to the public.

2. Liens for the physician against ward claims for damage and injuries received in accidents.

3. A lien in favor of hospital care of such patients.

It is our recommendation that the Georgia State Hospital Association appoint a committee to confer with the Legislative Committee of the Medical Association of Georgia in regard to much needed medical legislation.

We offer the following amendment:

That all hospitals be required to renew their licenses each year and that the Medical Association of Georgia be authorized to approve or reject the application for license.

Respectfully submitted,

Grady N. Coker, Chairman.

C. H. Richardson, Jr.,

K. McCullough.

George F. Klugh.

Arthur D. Little.

Hospital Committee.

This report was referred to the Committee on Public Policy and Legislation.

Cancer Commission: Dr. J. L. Campbell, Atlanta, Chairman, presented a report:

Report to be published.

Motion carried to adopt the report of the Cancer Commission.

Committee on History: President Fort called attention to the fact that during the past year two of the original members of this committee had passed away, and that the report would be made by the remaining member of the committee, Dr. Frank K. Boland.

DR. FRANK K. BOLAND: A meeting of this committee has been called for tomorrow morning at 9:00 o'clock and I will ask permission to defer the report until the next meeting of the House of Delegates. I will also request all Past-Presidents who are here to be present at our meeting.

Abner Wellborn Calhoun Lectureship: Dr. James E. Paullin, Atlanta, Chairman, presented the following report:

Mr. President and Members of the House of Delegates:

In submitting the Fourth Annual Report of the Abner Wellborn Calhoun Lectureship Committee, we wish to announce as our guest for this meeting, Dr. Dean Lewis, Professor of Surgery at the Johns Hopkins Medical School, Baltimore.

The committee feels that the Calhoun Lectureship within its period of existence has shown its usefulness to the Medical Association of Georgia and has fully justified the purposes for which it was organized. With this in mind, we still feel that it is deserving of better financial support towards a permanent and substantial endowment fund than we now possess. It is our hope that by increasing this some each year that after a while this part of the report need not be mentioned.

Dr. Frank K. Boland, the treasurer of this fund, has submitted the following financial statement:

Ten shares stock Southwestern Railroad.....	\$1,332.50
Contributions, May, 1931.....	46.00
Bank balance, May 12, 1931.....	928.06
Received interest from bank.....	26.49
Received interest Southwestern Railroad.....	65.00

\$1,065.55

<i>Disbursements</i>	
James B. Herrick, Expense.....	\$ 88.52
Bank balance, April 16, 1932.....	\$ 977.03
Making total assets of.....	\$2,309.53

Respectfully submitted,
James E. Paullin, Chairman.
H. I. Reynolds.
Eugene Murphy.
Craig Barrow.
Frank K. Boland.

Crawford W. Long Memorial Prize: Dr. William R. Dancy, Savannah, Chairman, presented the following report:

Mr. President and Members of the House of Delegates:

The Crawford W. Long Memorial Prize Committee desires to submit the following as its report for the past year. Papers to the number of thirteen, which papers were read at the annual session of the Association, May, 1931, were submitted in this contest for the prize. After careful examination and consideration it was the consensus of opinion of the majority of the members of the committee, that none of the papers contained sufficient originality to be considered as worthy of the prize. The papers as a whole were excellent but as the prize is donated for originality we feel that it should not be awarded this year.

Respectfully submitted,
William R. Dancy, Chairman.

Motion carried to adopt the report of the Crawford W. Long Memorial Prize Committee.

Advisory Committee—Woman's Auxiliary: Dr. B. H. Minchew, Waycross, Chairman, presented the following report:

Mr. President and Members of the House of Delegates:

As Chairman of the Advisory Committee of the Woman's Auxiliary, Medical Association of Georgia, I beg to report that we have endeavored in every way to cooperate with the Woman's Auxiliary. The Woman's Auxiliary has accomplished a great deal during your administration. They have greatly assisted in the Health Conferences conducted by the State Board of Health, and have ably assisted in every public health movement in which they have been permitted to associate themselves. The local organizations of the Auxiliary have been very active in the different localities in which they were organized, and have assisted in the problems which have confronted local communities with regard to health.

The Advisory Committee has carried on correspondence with different members of the official body of the Woman's Auxiliary, and has given advice freely, if not always wisely. We assisted in a public health meeting in Jefferson County in cooperation with the President-Elect of the Auxiliary. The meeting was well attended and much interest manifested in public health work. The report of the President of the Auxiliary will show the outstanding accomplishments of the year with reference to the Educational Fund, the health conference work and the local organization's work.

Our committee is very proud of the work they have accomplished and claims no part in the outstanding features of same.

In addition I may state that a resolution was submitted last year to the House of Delegates, but was never reported back to the Woman's Auxiliary. The

excellent work accomplished by the Woman's Auxiliary in the Health Conferences, sponsored by the State Board of Health this year, illustrates the value of the resolution, and I respectfully submit same for your favorable consideration.

BE IT RESOLVED: That the Medical Association of Georgia be asked to outline, at their meeting, each year or as soon thereafter as possible, a program for health education and that they use the Woman's Auxiliary to carry their plan to all lay organizations, securing their cooperation and endeavoring to bring about the condition where all health work that is done in the State will be with the approval and under the general supervision of the Medical Association of Georgia.

Respectfully submitted,
B. H. Minchew, Chairman,

Advisory Committee Woman's Auxiliary.

Motion carried to adopt the report of the Advisory Committee, Woman's Auxiliary.

Committee on Group Insurance: Dr. Dan Y. Sage, Atlanta, Chairman, presented the following report:

DOCTOR SAGE: I will first read you some extracts from a letter received just the other day from Arthur S. McCalmont of Nashville in reference to group insurance.

"I wish to advise that the plan was submitted in the following districts: Athens, Atlanta, Augusta, Macon, Rome, and Savannah as well as Columbus.

"To date, 221 have been insured under the plan: one death claim has been paid to the estate of Doctor Dowman in the amount of \$3,000, and one disability claim to the estate of Dr. Bates Block in the amount of \$250 a month. In the Atlanta district there were many that applied who were unable to get it due to the fact that 75 per cent did not participate."

According to this plan if 75 per cent of the physicians apply for insurance they are forced to take every physician in the district. The way the rate is arranged is for every man to pay according to his age the standard group rate, the rate increasing with age. It is cheap insurance for anyone for a nominal amount. In July the year expires. Those who have it and wish to renew and those who wish to join the group can do so at that time.

Motion carried to adopt the report of the Committee on Group Insurance.

Report of Delegates to the American Medical Association

Dr. William H. Myers, Savannah, presented a report of the 1931 meeting of the American Medical Association.

Motion carried to adopt the report of the delegates to the American Medical Association.

Dr. William H. Myers then presented a report of the 1932 meeting of the A. M. A.:

Motion carried to adopt the report of the delegates to the American Medical Association.

PRESIDENT FORT: Those portions of the report referring to the Veterans' Bureau and to insurance are hereby referred to the Committee on Public Policy and Legislation for consideration.

Report of Fraternal Delegates

Dr. Hal M. Davison and Dr. H. J. Rosenberg, Atlanta, presented a report from the South Carolina Medical Association.

Motion carried to adopt the report of the Fraternal Delegates to the South Carolina Medical Association.

Unfinished Business Redistrict State

Appointment of Committee (Redistrict State): President Fort appointed the following as a committee to consider the question of redistricting the State for the Medical Association of Georgia, to conform to the new congressional districts: Dr. R. F. Wheat, Bainbridge; Dr. H. M. Fullilove, Athens; Dr. James N. Brawner, Atlanta.

New Business—Report of Auxiliary

Dr. C. W. Roberts, Atlanta, presented the following resolution:

WHEREAS, the major objective of the Woman's Auxiliary to the Medical Association of Georgia is concerned with health education and,

WHEREAS, this activity is sponsored by the parent organization to which the Auxiliary is responsible for its stewardship; therefore, be it

RESOLVED: That the President of the Auxiliary be invited to present through the Chairman of the Committee on Policy and Legislation an annual report to the House of Delegates covering a resume of the year's accomplishments.

The resolution was referred to the Reference Committee and formally adopted at a subsequent meeting of the House of Delegates.

Committee on Foods

Dr. George W. Fuller, Atlanta, moved that a committee be appointed to draw up resolutions regarding the promiscuous advertising by various food concerns regarding diets.

The motion was seconded and unanimously carried.

Appointment of Committee (Committee on Foods)

—The President appointed the following to serve on this committee: Dr. G. W. Fuller, Atlanta, Chairman; Dr. Kenneth S. Hunt, Griffin; Dr. J. C. Patterson, Cuthbert.

Georgia State Nurses' Association: Miss Jane Van de Vrede, Secretary, presented a report, stressing particularly the need of a more centralized and more stable system of instruction to nurses. She urged that the two groups get together and determine what nurses should be taught and who should teach them.

The House of Delegates adjourned at 5:30 to reconvene at 8:30 p.m.

SECOND MEETING

Tuesday, May 17, 1932

The adjourned meeting of the House of Delegates was called to order at 8:45 p.m. by the Vice-President, Dr. Marion C. Pruitt, Atlanta.

Roll Call

The Secretary stated that he had the signed roll of the following twenty-five delegates and councilors, and moved that this constitute the roll call for this meeting:

J. W. Simmons, Glynn County; Marion C. Pruitt, First Vice-President; Grady N. Coker, Cherokee County; K. S. Hunt, Councilor Sixth District; H. M. Tolleson, Second Vice-President; Frank K. Boland, Fulton County; J. A. Redfearn, Councilor Second District; C. L. Ayers, Councilor Ninth District; F. M. Martin, Randolph County; J. E. Penland, Ware County; W. D. Gholston, Madison County; R. F. Wheat, Vice-Councilor Second District; J. O. Elrod, Forsyth (Ex-President); M. M. Head, President-Elect; Dan Y. Sage, Fulton County; S. T. R. Revell, Jefferson County; J. B. Kay, Bibb County; M. F. Haygood, Habersham County; S. S. Smith, Clarke County; W. R. Dancy, Savannah (Ex-President); Wm. H. Myers, Councilor First District; C. W. Roberts, Fulton County; S. B. Malone, Washington County; President Fort and Secretary Bunce.

The motion to accept the roll call was regularly seconded and carried and the President declared the House of Delegates duly constituted for the transaction of business.

*Maternal Mortality and Infancy Deaths**Resolution*

Dr. S. S. Smith, Athens, presented the following resolution:

BE IT RESOLVED: That a committee of twenty physicians who are especially interested in maternal welfare, two from each Congressional district, be appointed to investigate the cause of the high maternal

mortality in Georgia, and to meet as early as possible to discuss the best plan of procedure.

That the appointees return to their respective districts and as fast as possible meet with each County Society in the district. At this special meeting strive to have every physician present, whether or not he is a member, to discuss this question.

Motion carried to refer the resolution to the President.

Hospitals and Hospitalization of Veterans

Public Policy and Legislation: Dr. Dan Y. Sage, Atlanta, presented the following report, which was acted upon section by section:

Section 1. *Whereas*, it has been brought to the attention of all the medical associations in the United States that many thousands of persons are being hospitalized for disabilities non-service connected, and

Whereas, thousands of beds are available in civil hospitals with well-qualified staffs; therefore be it

RESOLVED: That the Medical Association of Georgia support the resolution of Dr. H. H. Shoulders of Tennessee, and be it further

RESOLVED: That a disability insurance be established to care for war veterans whose disability is non-service connected, providing for such patients to be cared for by personal physicians and in local civilian hospitals, and be it further

RESOLVED: That a copy of this resolution be sent to our Senators and Representatives in Congress with an urgent request for their support.

Section 2. Realizing that there is need for supervision of hospitals; therefore be it

RESOLVED: That the Medical Association of Georgia support a bill requiring each hospital to renew its license annually and that qualified medical inspection and approval be provided.

Section 3. This committee endorses the report of the Committee on Hospitals as presented by Dr. Grady N. Coker.

Dan Y. Sage, Chairman.
Marion C. Pruitt.
Frank K. Boland.

Motion carried to adopt the report of the Committee on Public Policy and Legislation.

Nursing Standards

Dr. Frank K. Boland: I wish to introduce for a moment the subject of standardizing the education of nurses. Miss Van De Vrede made the suggestion that representatives of this Association and of the Nurses' Association should get together and try to standardize the teaching of nurses. I think this is important and that we should take some action.

Motion carried to refer to the Committee on Hospitals.

Reference Committee

Reference Committee: Dr. H. M. Tolleson, Chairman, submitted a report for the adoption of the following recommendations:

*Election of Officers**Constitution Amended*

Election of Officers—Article IX, Section 3: Constitution Amended.

Section 3. In the second line strike out the phrase, "and without nomination". Following the third line, the last word being, "session"; insert "Nomination for office shall be made orally, but the nominating speech must not exceed two minutes". So when amended the section will read as follows: "The officers of this Association shall be elected by ballot at 12 o'clock noon on the third day of the annual session. Nomination for office shall be made orally, but the nominating speech must not exceed two minutes. The Councilors shall be elected at the same time, but on nomination by their respective District Societies at the annual meeting of such Societies preceding the meeting of the Association at which the vacancy occurs. If there

is no election on the first ballot, the three names receiving the highest number of ballots shall be voted on, the other names being dropped. If there is no election on the second ballot, the two names receiving the highest number of ballots shall be voted on until an election occurs. Delegates to the American Medical Association shall be elected at the same time and in the same manner."

Motion to adopt the amendment to the Constitution by a rising vote carried. (This amendment was proposed at the 1931 session.)

Other recommendations were as follows:

*Committee on Scientific Work
By-Laws Amended*

2. *By-Laws, Chapter VI, Section 2*, be amended to read: "The Committee on Scientific Work shall consist of four members of which the Secretary-Treasurer shall be one. The other three members shall be appointed for one, two and three years, respectively. Each year the vacancy shall be filled by the appointment of a member by the President to serve for three years. The Chairman shall be the member who has the shortest remaining time to serve. The balance of Chapter VI, Section 2, shall remain unchanged.

Amendment proposed on May 18, 1932, tabled for one day and adopted on May 19, 1932.

Georgia State Dental Society—Speaker

3. The committee recommends that the Committee on Scientific Work invite one speaker each year from the Georgia State Dental Society to appear on our annual program. Motion carried to adopt this section of report.

Georgia State Dental Society—Delegate

4. The committee recommends that our President appoint one Fraternal Delegate each year to attend the annual meetings of the Georgia State Dental Society. Motion carried to adopt this section of report.

Crawford W. Long Memorial Day

5. The committee recommends that a committee of three be appointed to prepare a program to observe March 30th each year as "Crawford W. Long Memorial Day" by the members of the Association. Motion carried to adopt this section of report.

Registration of Physicians

6. The committee recommends that the members of the Association cooperate with the Joint Secretary of the State Examining Boards by returning promptly registration blanks furnished for this purpose. Motion carried to adopt this section of report.

Postgraduate Courses

7. The committee recommends that we endorse the postgraduate work being carried on by the Extension Department of the University of Georgia, Athens; University of Georgia Medical Department, Augusta; and Emory University School of Medicine, Emory University. Motion carried to adopt this section of report.

Committee on Foods: Dr. George W. Fuller presented the following report:

Mr. President and Members of the House of Delegates:

Whereas, much misinformation is promulgated today concerning the question of diets, thus causing the introduction of food fads, very few of which can take the place of the older staple foods, and

Whereas, any balanced diet should contain animal proteins, fruits, vegetables, especially the leafy vegetables, and the better grades of breads prepared from flour which will insure adequate vitamin and mineral salt content, digestible fat such as butterfat, and sufficient of the digestible carbohydrates to afford readily available energy; and,

Whereas, the allegation that white bread, meat or any other staple food, when employed in mixed diet

is responsible for certain grave illnesses, is not supported by scientific facts; therefore be it

RESOLVED: That the Medical Association of Georgia, in the interest of the public, wishes to be placed on record that in the opinion of its members:

1. The exaggerated claims for various fad foods are unwarranted by scientific evidence or practical experience; and the advertising and other propaganda furthering their substitution for the older articles of diet should be condemned.

2. The danger of nutritional deficiencies has been grossly exaggerated. No one food is a perfect food; but a diet consisting of dairy products, leafy vegetables, fruits, meats and easily digested starches furnishes an excess of all food factors necessary for proper growth and nutrition and resistance to disease.

3. Any variation from a normal diet should be prescribed only by a properly trained physician after a careful study of the dietary requirements of the individual seeking advice.

Respectfully submitted,

George W. Fuller, Chairman.

J. C. Patterson.

K. S. Hunt.

Motion carried to adopt the report of the Committee on Foods.

Woman's Auxiliary

Dr. B. H. Minchew moved that the activities of the Woman's Auxiliary as outlined by Mrs. J. Bonar White be heard by the House of Delegates on Thursday, May 19th. Motion carried.

Reports of Officers and Committees

Motion carried to limit all reports of officers and committees before the House of Delegates to ten minutes.

Members—Proposed Amendment to By-Laws

By-Laws: Chapter I, Section 4. Membership. Proposed Amendment. It is proposed to amend Chapter I, Section 4 of the By-Laws of the Association by adding the following: "In addition to the regular paid and honorary members as now carried on the roster of constituent county societies and the Association; county societies may elect other members to be known as "affiliate, associate, graduate or interne" members. Such members may be elected by any county society without the payment of dues and reported to the Secretary-Treasurer of the Association. All such members shall be carried on the roster of members of the Association with the privilege of attending any and all meetings of county, district societies and the Association, but will not be eligible to vote, hold office or serve as committeemen in any of the constituent societies or the Association.

THIRD MEETING

Thursday, May 19, 1932

The third meeting of the House of Delegates was called to order at 8:15 a.m., by the President, Dr. Arthur G. Fort, Atlanta.

Roll Call

The Secretary stated that he held in his hand the signed roll of the following forty-two Delegates and Councilors and moved that this be accepted as the official roll call of this meeting:

George W. Fuller, Fulton County; W. E. Barber, Fulton County; W. F. Wells, Fulton County; G. L. Echols, Baldwin County; W. D. Gholston, Madison County; William H. Myers, Councilor First District; H. M. Fulilove, Councilor Eighth District; Marion C. Pruitt, First Vice-President; R. V. Martin, Chatham County; O. H. Weaver, Bibb County; W. A. Selman, Councilor Fifth District; P. L. Williams, Crisp County; F. M. Martin, Randolph County; C. W. Roberts, Fulton County; R. F. Wheat, Vice-Councilor Second District; W. A. Mulherin, Augusta (Ex-President); J. O. Elrod, Forsyth (Ex-President); J. M. Smith, Valdosta (Ex-President); S. S. Smith,

Clarke County; J. B. Kay, Bibb County; W. W. Anderson, Fulton County; M. F. Haygood, Habersham County; J. W. Palmer, Montgomery County; J. V. Rogers, Grady County; L. A. Williams, Wilcox County; Marion T. Benson, Fulton County; Frank K. Boland, Fulton County; J. A. Redfearn, Councilor Second District; G. L. Kelly, Richmond County; W. C. McCarver, Burke County; Q. A. Mulkey, Jenkins County; K. S. Hunt, Councilor Sixth District; J. H. Jackson, Lamar County; M. M. Head, President-Elect; H. M. Tolleson, Second Vice-President; C. L. Ayers, Councilor Ninth District; E. S. Peacock, Washington County; S. T. R. Revell, Jefferson County; S. F. Scales, Carroll County; T. J. McArthur, Crisp County; President Fort and Secretary Bunce.

The motion of the Secretary to accept the roll call was regularly seconded and carried, and the President declared the House of Delegates duly constituted for the transaction of business.

Committee on Scientific Work

By-Laws: Chapter VI, Section 2. Amended. The first paragraph of Chapter VI, Section 2, shall be changed to read as follows: "The Committee on Scientific Work shall consist of four members of which the Secretary-Treasurer shall be one. The other three members shall be appointed for terms of one, two, and three years, respectively. The vacancy which will occur each year by the expiration of the term of one member shall be filled by the President with an appointment for three years. The member who has the shortest time to serve shall be Chairman."

Committee on Medical History: Dr. Frank K. Boland presented the following report:

The committee met in Savannah, May 19, 1932, with the following members present: Drs. Elrod, Mulherin, Dancy, Daniel, Smith, Boland, Fort, and Bunce. Doctor Boland, Chairman, presided.

Doctor Bunce reviewed the work which had been accomplished to the present time and stated that the sub-committee, consisting of Drs. Thrash, Clark, and Boland, with the Secretary of the Association, had held many meetings, and had employed Mr. J. P. Corry of the Department of History of Emory University, to write the History of Medicine in Georgia.

Many chapters of the History are completed, but there remains much yet to be finished, especially in writing the History of Medicine in various sections of the State. The cooperation of the members of the Association will be necessary if every section of the State is to be represented in the completed History.

Drs. Dancy and Fort were elected to fill the places of Drs. Thrash and Clark, deceased, on the sub-committee, and Doctor Boland was made Chairman of the sub-committee.

The sub-committee was authorized to finish the work, and publish the History as soon as possible. Mr. Corry has completed his task of compiling data, and the sub-committee was instructed to engage an editor to prepare the History for publication at the earliest possible date.

Respectfully submitted,

Frank K. Boland, Chairman.
W. R. Dancy.
J. M. Smith.
A. G. Fort.
W. A. Mulherin.
J. O. Elrod.
J. W. Daniel.
A. H. Bunce.

Motion carried to adopt the report.

Committee on Redistricting: Dr. R. F. Wheat, Chairman, submitted the following proposed amendment to the Constitution:

Article IX, Section 1, be amended to read as follows: "Section 1. The officers of the Association shall be a President, President-Elect, two Vice-Presidents, a Secretary-Treasurer, a Parliamentarian, and one Coun-

cillor from each Congressional district of the State."

Article IX, Section 2, be amended to read as follows: "Section 2. The officers, except the Secretary-Treasurer, Parliamentarian and Councilors, shall be elected annually, provided that after the annual session of 1928 a President-Elect and not a President shall be elected annually. The President-Elect shall assume office as President immediately after the next annual session following his election. The terms of the Councilors shall be for three years, as may be arranged, viz., the Councilors for the first, second, third, and fourth districts for three years; those for the fifth, sixth, seventh, and eighth districts for one year; those for the ninth and tenth districts for two years. The Secretary-Treasurer shall be elected for a term of five years, and the Parliamentarian for a term of three years. All these officers shall serve until their successors are elected and installed."

Report of Council—Medical Defense

After hearing a report from the Committee on Medical Defense we recommend that they be given for carrying on their work the same amount as last year, namely, \$3,000.

Honorarium

We recommend that an honorarium of \$150 be paid the President next year to partly defray his expenses.

Invited Guests

We also recommend that the House of Delegates appropriate sufficient funds to pay the expenses of two invited guests of the Association.

The Committee of the Council appointed to audit the books of the Secretary-Treasurer reports as follows:

Auditing Committee

We the undersigned Auditing Committee of the Council have examined the books of the Secretary-Treasurer and find them correct.

J. A. Redfearn.
J. C. Patterson.
H. M. Fullilove.

Hardman Loving Cup

It was delegated to the Council to select the name of the physician that is entitled to be placed on the Hardman Cup this year as a result of his scientific achievements, but this body asked for more time in which to make the selection, and will report at a later date.

Illegal Practitioners

The Committee on Medical Defense together with a representative of the State Board of Medical Examiners reports that there are at present an unusual number of illegal practitioners operating in the State and they ask the cooperation of the Council and House of Delegates in aiding them to bring such offenders before the proper authorities for prosecution.

Exhibits

The following committee was appointed to examine and encourage scientific exhibits, to visit exhibits during this session and make a report tomorrow: Dr. Frank K. Boland, Dr. K. S. Hunt, Dr. W. A. Selman, Dr. J. A. Redfearn.

Respectfully submitted,

C. L. Ayers, Chairman.

Motion carried to adopt the report of the Council.

Report From Woman's Auxiliary

Dr. B. H. Minchew introduced Mrs. J. Bonar White and stated that Mrs. White had this week been given signal honor in being appointed a Regent of the Southeastern Section of the National Woman's Auxiliary and also made President-Elect of that organization.

On motion regularly seconded and carried, the House of Delegates accepted this report by a rising vote of thanks. On motion regularly seconded and carried the House of Delegates adjourned at 9:40 a.m. to reconvene at 8:30 a.m., Friday, May 20th.

FOURTH MEETING

Friday, May 20, 1932

The fourth called meeting of the House of Delegates was called to order at 8:40 a.m. by the President, Dr. Arthur G. Fort, Atlanta.

Roll Call

The Secretary stated that he held in his hand the signed roll of the following twenty-two Delegates and Councilors and moved that this be accepted as the official roll call of this meeting:

W. A. Selman, Councilor Fifth District; C. B. Lord, Jefferson County; T. J. McArthur, Crisp County; George W. Fuller, Fulton County; J. A. Redfearn, Councilor Second District; C. L. Ayers, Councilor Ninth District; Dan Y. Sage, Fulton County; S. T. R. Revell, Jefferson County; S. S. Smith, Clarke County; M. M. Head, President-Elect; K. S. Hunt, Councilor Sixth District; W. F. Wells, Fulton County; W. E. Barber, Fulton County; W. C. McCarver, Burke County; Marion T. Benson, Fulton County; J. B. Kay, Bibb County; William H. Myers, Councilor First District; E. S. Peacock, Washington County; W. D. Gholston, Madison County; C. W. Roberts, Fulton County; President Fort and Secretary Bunce.

The motion of the Secretary to accept the roll call was regularly seconded and carried, and the President declared the House of Delegates duly constituted for the transaction of business.

THE PRESIDENT: Gentlemen, as you know, this meeting was called to consider the report of the Council in reference to a proposed registration fee to be applied to entertainment at our annual session. I will now call on the Chairman of the Council for his report.

Registration Fee

DR. C. L. AYERS: This matter was referred to the Council for recommendation. The Council met yesterday and discussed the matter from every angle, and without a dissenting vote agreed to recommend that we have no registration fee.

Motion carried to adopt the recommendation of the Council.

DR. W. F. WELLS: Two or three members of the Association after hearing the President's address wished to bring a few resolutions before the House, but as this meeting was called for the one purpose I move that we now adjourn and hold another called meeting immediately.

The motion was seconded and unanimously carried.

President Fort declared the meeting adjourned and at once called the House of Delegates to order again.

DR. W. F. WELLS presented the following resolution and moved its adoption:

Propaganda

Whereas, our President of the Medical Association of Georgia in his annual Presidential Address brought to our attention some very timely thoughts regarding the economic trend of the practice of medicine, and

Whereas, we feel that the time has come when organized medicine must take its stand in the leadership of things pertaining to our profession, both politically and from the standpoint of practice, and

Whereas, we feel that the medical profession has been, and still is, being subsidized in many instances by lay organizations, and

Whereas, we believe the medical profession should have more part in the scheme of things pertaining to their services, and

Whereas, we believe the only way to properly cope with this trend is to keep abreast of what is taking place, through committees composed of medical men capable of considering with and formulating for these organizations a fair and equitable consideration of our rights pertaining thereto; therefore be it

RESOLVED: That the House of Delegates recommend to the Medical Association of Georgia that a

committee be appointed by the President, who shall keep informed of the activities of lay organizations in securing medical service, and who shall from time to time present such information through our medical organizations to our members, in order that we may justly be given the privilege of taking the lead in things medical, as well as attempting to protect the practitioners of medicine from the wholesale giving away of their service, which is their only means of earning a livelihood for themselves and their dependent families.

Respectfully submitted,

W. F. Wells.

The motion to adopt was seconded by Dr. S. T. R. Revell.

DR. W. A. SELMAN: I rise to a point of information as to how this committee would differ from the Committee on Public Policy and Legislation.

DR. W. F. WELLS: It would be quite different from that committee, for it would have to do with the general things being taken up by lay organizations that hold clinics and otherwise interfere with the practice of medicine.

The motion was then put to a vote and unanimously carried.

Program for Auxiliary

DR. MARION T. BENSON: In accord with the resolution which was adopted the other day, I move that the President and the Advisory Committee of the Woman's Auxiliary, as early as possible, outline the work for the Woman's Auxiliary during the year.

The motion was seconded by Dr. S. T. R. Revell and unanimously carried.

On motion regularly seconded and carried, the House of Delegates adjourned at 9:10 a.m., *sine die*.

ALLEN H. BUNCE, Secretary.

FOCAL ENLARGEMENT OF TEMPORAL BONE
AS SIGN OF BRAIN TUMOR

Ross H. Thompson, Philadelphia (*Journal A. M. A.*, July 30, 1932), records and discusses two instances of external prominence of the squamous portion of the temporal bone in children, directly overlying an intracranial tumor and not due to hyperostosis, but to bulging. In each, the occurrence was sufficiently early to furnish the principal evidence of the presence and localization of the growth. In one case the tumor was of meningeal origin and had no buffer between it and the thin squama directly overlying, which, according to roentgen and microscopic evidence, was invaded by tumor cells and thereby increasingly weakened. The dura adherent to the bone pinioned the tumor to the skull vault and created a tendency to limit direct pressure outward and inward in the immediate neighborhood. Inward pressure on the optic radiation would account for the left homonymous hemianopia. Outward pressure would account for the thinning and bulging of the bone. Pressure internally and above in the direction of the internal capsule would account for the pyramidal tract symptoms. The growth probably slowly decompressed itself by a gradual formation of the lump. The absence of symptoms and the improvement in the optic neuritis one year before admission probably were due to the increased cranial capacity occasioned by the bulge, although the latter was not discovered until one day before admission. In the other case the tumor did not arise from the meninges. It was of deep origin and was shown by the ventriculogram to have shifted the lateral ventricles and midline structures to the left in the direction of the opposite squama.

ECZEMA IN INFANCY AND CHILDHOOD*

Its Relation to Allergy

LEE BIVINGS, M. D.
Atlanta

Infantile eczema, of the more severe type, has long been a source of trouble to the pediatrician and family physician. Its relation to allergic phenomena has been known only a short time and recent reports suggest valuable contributions to the management of this troublesome condition.

Once established as the true allergic type, infantile eczema offers a promise of comparatively easy management because of two simple facts; first, the skin of infants is peculiarly sensitive and reacts more readily and more accurately than in later life; second, most allergic reactions in small children are due to foods which makes the search for the causative factor much simpler.

Racial and Social Tendencies: Allergic diseases occur but infrequently in the American Indian and the Negro. They occur more frequently in the more highly developed races and individuals.

Family Tendencies: Family histories of asthma, eczema, hay fever, migraine, urticaria, or other allergic reactions are positive in from 70 to 80 per cent of cases studied.

Incidence of Eczema: A study of 989 children revealed eczema in sixty, or six per cent.

Differential Diagnosis: This often offers considerable difficulty, many of the contagious skin diseases of children such as ringworm, impetigo, and scabies being confused with eczema. It is characterized by chronicity, tendency to exacerbations and its common location on the face.

Causes of eczema may be classified as exogenous, or exciting, such as skin irritation, thermal changes, focal infection, and constipation; endogenous, such as foods, most common of which is cows' milk, eggs, and wheat. Other cereals and fruits are also common causes and any food may be to blame.

Laboratory findings are of little value. Eosinophilia often occurs but is not diagnostic.

Diagnosis based on the following findings:

1. Physical examination of the patient for the characteristic lesions which may vary from the small dry scaly patches to the severe weeping type.
2. History: Family history for allergic tendencies—

Personal, which often gives valuable information as to the specific cause.

3. Testing: In this series testing has been confined to the scratch method. Interpretation is all-important. Reactions vary from slight erythema around the scratch to urticarial wheals with pseudopods. The former is more frequently seen in children.

4. Diet elimination tests which were not used in this series.

Treatment

1. Elimination of offending foods for a period of three to six months, then gradual addition, with the development of an immunity and absence of reactions. In the case of milk in infants' soybean milk proved a very effective substitute and maintained a high state of health when used over a long period of months. Mild cases may be cleared by the prolonged boiling of the milk or acidification.

Local

2. Any mild soothing ointment. The addition of two-tenths per cent ephedrin sulphate seemed to help the weeping cases and relieve itching.

Summary of Results

Completely recovered, 67 cases, or 81 per cent; improved, 5 cases, or 6 per cent; failures—outcome unknown, 9 cases, known failures 2 cases or 13 per cent.

Conclusions

1. Most infantile eczemas are allergic in origin.
2. Prompt and lasting relief may usually be obtained by testing and diet elimination.
3. Mild cases rarely need treatment other than soothing ointments because they develop their own immunity and clear spontaneously.
4. The high percentage of good results in this series may be explained by the small number of cases and the excellent follow-up work done by the social service worker.
5. A study of infantile eczema from the standpoint of allergic reactions offers a logical method of procedure based on scientific facts and substantiated by extensive clinical experience other than my own.

205 Exchange Building.

CONVULSIONS IN CHILDHOOD

M. G. Peterman, Milwaukee (*Journal A. M. A.*, Aug. 13, 1932), reports the results of a study of 419 cases of convulsions in children. A diagnosis was established in 93.3 per cent. The study includes a complete history, a careful physical examination, including neurologic studies, a blood count, a Wassermann test of the blood and micro-precipitation tests, urinalysis, examination of the spinal fluid (except in spasmophilia), examination of the fundi, x-rays of the skull and examinations of the stools. In the past three years the author has made encephalograms in doubtful cases. The results reveal that certain diseases peculiar to childhood are the direct causes of most of the convulsions. While some children may be said to be particularly susceptible to the convulsive state, this study indicates that there is usually a physical basis for this susceptibility (spasmophilia or epilepsy) which is amenable to treatment. Every convulsion produces a certain amount of cerebral injury and therefore lowers the threshold for subsequent seizures. Every convulsion demands a careful study and effort to prevent a recurrence. It is extremely unfortunate that there are still physicians who consider convulsions a necessary evil of childhood and advise parents that the child will "outgrow" the tendency. The author presents a practical classification of convulsions in childhood based on the age of the patient.

*Abstract of paper appearing in the *Southern Medical Journal*, 25:223, March, 1932.

THE JOURNAL

OF THE
MEDICAL ASSOCIATION OF GEORGIA
Devoted to Welfare of Medical Association of Georgia

139 Forrest Avenue, N.E., Atlanta, Ga.

AUGUST, 1932

RESEARCH

When the surgeons of the Confederate armies returned to their ruined homes in the Southland, they were equipped to practice medicine with brains,—and with little else. Fortunately, they were equipped with good brains, and we can well be proud of the work they did, the courtly and cultured gentlemen of the old South. But they were so busy taking care of their patients and trying to eke out a living, let alone reconstructing their country, that they had little energy left to advance medical knowledge. And what little energy in this line they may have had was gravely handicapped by the lack of material facilities. Perhaps, too, the very charm of living in the heart of Dixie may have further neutralized their lust for recording their valuable clinical observations or for seeking fresh worlds to conquer.

In more recent years, however, some fundamental research has been undertaken. At the University in Augusta, Sandison opened a new field of study by devising an ingenious window for the rabbit's ear through which the vital processes might be observed microscopically. Emory too has contributed research artists: Kracke's investigations of certain blood dyscrasias have already been mentioned in these columns, and the recently announced experiments of Hanson and Calhoun in the treatment of pneumonia by the administration of oxygen and carbon dioxide will be abstracted after they are published in one of the national journals. Gay's work in jaundiced dogs, which was described at the recent convention in Savannah, will be published in the JOURNAL in the course of time. And other work of like nature has been and is being carried on in Georgia.

But research of this type cannot be carried on by the man actively engaged in the independent practice of medicine. There is, however, a type of investigation that the prac-

titioner can do to the advancement of medical science and to his own satisfaction and development, if not to his own aggrandizement.

An illustration of the type of research work the practitioner can do has recently been published by the Macmillan Company in their series of medical monographs, "An Experimental and Clinical Study of Pain in the Pleura, Pericardium and Peritoneum," by Joseph A. Capps.

As Doctor Carlson says in the Foreword, "The operating needle in the hands of the doctor, has accidentally touched the human diaphragm many times, but in the case of the author of this monograph the common mistake struck a spark that has glowed brilliantly for twenty-five years, in simple, direct, and conclusive experiments. . . It is clearly possible for a life busy in the art of medicine to make fundamental additions to the science of medicine."

Doctor Capps has made a magnificent con-

The JOURNAL would like to record the scientific work of Georgia doctors. It earnestly requests, therefore, that each physician in the State who publishes a contribution in some other medical periodical submit an abstract of the article for these columns.

tribution to the advancement of medical knowledge. But he has done more than this. He has thrown down the gauntlet both to the young snob who believes that science can be advanced only in an expensive laboratory, lavishly equipped with test-tubes, guinea pigs and dogs, and to the practitioner who feels that his sole professional duty is to practice medicine to the best of his ability according to the lights that were given him while in medical school.

L. M. B.

The Bone and Radiological Conference will be held at the Johns Hopkins University under the auspices of the Surgical Pathological Laboratory of Johns Hopkins Hospital, Baltimore, Md., September 19-24. Room accommodations may be secured at special rates at the Lord Baltimore Hotel. Lunch will be served on the campus of the University at 50 cents. Any attending doctor may present a case of oral or bone lesion with lantern slides.

COMMITTEE ON PUBLIC POLICY AND LEGISLATION

LEGISLATIVE PROGRAM

The Committee on Public Policy and Legislation met in the office of the Chairman, Dr. Dan Y. Sage, Medical Arts Building, Atlanta, August 4, 1932. In addition to the members of the Committee whose names appear below, Ex-President Dr. A. G. Fort, Dr. J. T. Floyd and Dr. C. C. Aven, representing the Fulton County Medical Society were present. The Committee, after careful consideration and due deliberation, compiled the following Legislative Program from the minutes of the Association:

NATIONAL LEGISLATION

Veterans Bureau.—We favor restriction of free hospitalization and free medical care to those veterans having service connected disabilities and those unable to pay for medical and hospital service. At present all veterans of all wars, regardless of their ability to pay, are entitled to free hospitalization and medical care.

STATE LEGISLATION

1. *State Board of Health.*—We favor an amendment to the Reorganization Act so as to place the Department of Public Health under the management and control of a Board of Health, thus taking this important branch of the state government entirely out of politics. We suggest that the State Board of Health be composed of twelve members—one from each congressional district, a majority of these to be physicians who should be nominated by the Medical Association of Georgia and appointed by the Governor and confirmed by the Senate. Two members should be from the state at large, selected from a list of dentists furnished by the Georgia State Dental Association. The Governor should be an ex-officio member of this board.

2. *Sterilization Law.*—We favor the sterilization of the hopelessly and criminally feeble-minded and insane after thorough examination and upon recommendation of a medical board.

3. *Inspection of Hospitals.*—We favor inspection, classification and regulation of all hospitals in the state by a division of the State Board of Health.

4. *Protection of Hospitals.*—The same protection should be given to hospitals that is now given to hotels in the collection of their bills.

5. *Registration of Automobile Drivers.*—We favor the license of automobile drivers

and compulsory liability insurance for the protection of injured persons, hospitals, physicians and damaged property.

6. *Workmen's Compensation Act.*—We favor an amendment to the Workmen's Compensation Act to increase the limit of liability for medical and hospital service to \$500 in that very small percentage of cases where prolonged hospital and medical care is necessary to save the life of and restore injured workmen to health.

Dan Y. Sage, M.D., Chairman, Atlanta; A. R. Rozar, M.D., Macon; Grady N. Coker, M.D., Canton; Marvin M. Head, M.D., President, Zebulon; Charles H. Richardson, President-Elect, Macon; Allen H. Bunce, M.D., Secretary-Treasurer, Atlanta, Committee on Public Policy and Legislation.

BOTULISM IN NORTH DAKOTA: REPORT OF OUTBREAK OF THIRTEEN FATAL CASES

Robert W. Allen and A. Walter Ecklund, Bismarck, N. D. (*Journal A. M. A.*, Aug. 13, 1932), state that the first recorded outbreak of botulism in North Dakota occurred in June, 1930, at Golva, Golden Valley County, with four fatal cases reported. North Dakota suffered its second reported outbreak of botulism in 1931, which incidentally was the largest outbreak ever to occur in this country in a single community from a single common cause, and occurred within eight months after the outbreak at Golva. A midnight lunch consisting of buns, hot boiled wieners, vegetable salad, light spice cake, light cookies and coffee was served in connection with a party given at a farm home near Grafton, Walsh County, on the evening of January 29, 1931.

The salad consisted of diced carrots, peas and cut string beans, served on a lettuce leaf, with whipped cream dressing. The carrots, peas and string beans were from a "batch" home canned the previous season by the so-called cold pack method, a copper wash boiler having been used instead of a pressure cooker. The canning receptacles used were glass jars with both metal and glass caps. The host family had been eating of this "batch" of vegetables during the fall and winter without previous ill effects. A history of disease among the animals or poultry on the farm was not obtainable. Sixteen of the seventeen present partook of the entire lunch, one guest declining to eat the salad because he never ate vegetables in any form; subsequently he did not become ill. Thirteen of the sixteen who ate of the salad afterward became ill and died. The remaining three who ate of the salad and did not subsequently become ill therefrom were intoxicated at the time of eating, had been nauseated and vomited before lunch was served, and vomited again during or just after lunch. "Moon" or "hootch", home-made beer, and wine were the liquors consumed by several who attended the party. It did not enter into the cause of death, however, as five of the victims who died did not take a drink of liquor in any form. The diagnosis of botulism, type A, was confirmed by the University of Chicago laboratory, from a section of the colon of one of the victims. The vegetable mixture of diced carrots, peas and cut string beans served in the salad was without doubt the poisoned food. This is concluded from the elimination of all other possible poisoned food and the suggestive laboratory observations on other similar canned vegetables. On the basis of their observations, evaluations are made.

GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. ABERCROMBIE, M.D., *Director*INCREASED POSTAL RATES FOR
LABORATORY SPECIMENS

Beginning July 6th the postal rate of first-class mail increased from two cents to three cents an ounce. This change will increase the cost of mailing specimens to the laboratory, particularly those specimens which contain written information about the patient other than the name of the patient and the name and address of the doctor. Wassermann specimens in the laboratory outfit will require nine cents, or three cents more than the old rate. Any attempt to ship such material at parcel post rates will not only delay delivery of the specimen and thereby cause inconvenience to the physician and the patient, but it will also work a hardship on the laboratory. If the sender fails to place adequate postage on the package, the laboratory will have to pay the shortage *plus one cent an ounce penalty*.

Specimens other than those submitted in the regular Wassermann outfit may be shipped at parcel post rates *provided* the package contains no information or data other than the name or identifying number of the patient and the name and address of the sender. All other information such as is required on the regular specimen blank must be enclosed in a separate envelope and mailed as first-class.

A number of specimens may be packed together in a single container and shipped at parcel post rates, *provided* all information or data other than the name or identifying number of each specimen be enclosed in a separate envelope bearing first-class postage and either mailed separately or attached to the outside wrapping of the package.

It should be remembered, however, parcel post does not move as rapidly as first-class matter. Hence all specimens requiring prompt delivery and service should be mailed first-class at three cents an ounce or fraction of an ounce.

1931 MORTALITY IN GEORGIA

The following table presents the number of deaths with the corresponding death rates per 100,000 population from specified important causes of death. The crude death rate per 1,000 population in 1931 shows a decrease of about 7 per cent compared with the rate for 1930.

In 1931 the health record of Georgia was one of the most remarkable of any year for which reliable mortality data are available. This does not mean that the death rate was the lowest ever recorded, but it is remarkable

that in spite of the most severe economic depression of a generation, together with a drought which lasted throughout the typhoid fever peak months, and in face of an influenza epidemic during the first four months of the year the death rate exceeded the minimum by only 1.1 per 1,000 population. However, if the present unfavorable economic conditions continue there will be an appreciable increase in the death rate.

Of the thirteen causes of death included in the epidemic and parasitic class (typhoid fever to tuberculosis) over one-half show decreases in their death rates. Whooping-cough, malaria, dysentery and measles show the greatest decreases in the number of deaths. Influenza shows an increase of 337 deaths with an increase in the death rate of 33.8 per cent.

The death rate from pellagra increased from 14.9 in 1920 to 30.0 in 1929, but the rate for the last two years shows marked decreases over the peak rate 30.0.

Cancer, diseases of the heart and nephritis have shown steadily increasing death rates since 1920. The death rate from cancer has increased from 38.8 in 1920 to 53.8 in 1931. An increase of 15.0 or 39 per cent. The death rate from diseases of the heart increased from 65.3 in 1920 to 134.4 in 1931. An increase of over 100 per cent, and the death rate from nephritis increased from 76.0 in 1920 to 109.8 in 1931. An increase of about 30 per cent. However, the death rates in 1931 for both nephritis and diseases of the heart are lower than the rates for 1930.

In 1920 the death rate from automobile accidents was 4.8, and in 1931 it was 20.8, an increase of 333 per cent. This steady increase, from year to year, has occurred in spite of the efforts of the National Safety Council, newspapers and other organizations to arouse a spirit of courtesy and caution in drivers of automobiles.

The greatest assets of this State are its strong, healthy people, and if the State fails to protect their health and life against preventable diseases it will lose more than a deflation in taxable values. Life, health, faith and morale are more important to the progress and development of the State than the price of cotton, amount of wages or any other material thing. Much is being done to rid the State of typhoid fever, malaria, hookworm and other preventable diseases, but much more must be done before our people will be relieved of the physical pain, mental

anguish, and stupendous financial loss through sickness and death from preventable diseases.

DEATHS (exclusive of still-births) AND DEATH RATES PER 100,000 POPULATION FROM SPECIFIED CAUSES, IN GEORGIA:
1930 AND 1931

Cause of Death	Number of Deaths		Death Rate Per 100,000 Population	
	1930	1931	1930	1931
ALL CAUSES	35,188	32,989	1207.4	1123.0
Typhoid Fever	500	513	17.2	17.5
Malaria	442	307	15.2	10.5
Smallpox .....	.....	.....	.....	.....
Measles	128	62	4.4	2.1
Scarlet Fever	38	46	1.3	1.6
Whooping Cough	257	113	8.8	3.8
Diphtheria	135	158	4.6	5.4
Influenza	964	1,301	33.1	44.3
Dysentery	305	177	10.5	6.0
Poliomyelitis	31	33	1.1	1.1
Lethargic Encephalitis	9	12	0.3	0.4
Epidemic Meningitis	93	56	3.2	1.9
Tuberculosis	2,175	2,165	74.6	73.7
Cancer	1,552	1,580	53.3	53.8
Diabetes Mellitus	352	322	12.1	11.0
Pellagra	713	563	24.5	19.2
Cerebral Hemorrhage and Softening	2,536	2,366	87.0	80.5
Heart Diseases	4,099	3,948	140.7	134.4
Pneumonia	2,580	2,465	88.5	83.9
Diarrhea and Enteritis (under 2 years)	721	545	24.7	18.6
Cirrhosis of Liver	134	123	4.6	4.2
Nephritis	3,787	3,226	129.9	109.8
Puerperal Causes	658	616	22.6	21.0
Malformation and Early Infancy	1,890	1,827	64.9	62.2
Suicide	296	315	10.2	10.7
Homicide	569	597	19.5	20.3
Accidents and Other Violence	1,992	2,010	68.4	68.4
Unknown or Ill-Defined	2,297	2,173	78.8	74.0
All Other Causes	5,935	5,370	203.7	182.8

Peripheral Vascular Diseases: Treatment with Acetylcholine Hydrochloride. By W. C. Waters, M.D., Atlanta, in Ann. Int. Med. 5:1267 (April), 1932.

Three patients having trophic lesions due to vascular disease of the extremities were treated by intramuscular injections of acetylcholine hydrochloride. Healing of gangrenous areas, relief of pain and elevation of the surface temperature to a higher level was obtained by the use of the drug. In one case, pulsations in the peripheral arteries were re-established.

In one to three hours following an injection the cutaneous temperature in the affected parts was increased two to five degrees Centigrade. This elevation lasted eighteen to twenty-four hours and was accompanied by a sense of warmth and relief of pain in the extremities.

The advantages of the use of acetyl-hydrochloride are (1) the ease of administration, (2) the absence of constitutional reactions following its use, and (3) the ability to maintain a constant and uniform elevation of the surface temperature by frequently repeated injections.

GEORGIA HOSPITAL ASSOCIATION

A called meeting of the Georgia Hospital Association was held at the Piedmont Hospital in Atlanta, July 28th, at 6:30 P.M. for the purpose of reorganization and to transact such other business as might properly come before the meeting. Miss Feebeck, President, presided. Those present were the guests of the hospital at dinner. Twenty-two members were present.

The nominating committee nominated the following offices, who were unanimously elected:

Miss Annie Bess Feebeck, President.

Mr. Robert Hudgens, First Vice-President.

Miss Blanche Sims, Second Vice-President.

Mr. George R. Burt, Executive Secretary.

Trustees

Dr. Grady N. Coker, Canton, one year.

Dr. Russell H. Oppenheimer, Emory University, two years.

Mr. J. B. Franklin, Atlanta, three years.

Motion carried to adopt the report of the special committee on Constitution and By-Laws.

It was voted that the Association meet in October, January, March and June of each year.

Mr. Hudgens extended a cordial invitation to the association to meet at Wesley Memorial Hospital in October, which was accepted.

Miss Feebeck appointed the following committee to arrange the program for the October meeting:

Dr. Russell H. Oppenheimer, Mr. Robert Hudgens, and Miss Frances Le Guin.

The trustees will select a date for the meeting later.

Miss Van De Vrede suggested that the Association meet in Albany with the Georgia Nurses' Association in October. It was voted that this suggestion be considered by the trustees.

We were fortunate in having as our guests Dr. Henry Poer, Miss Jordan and Miss McGinnis, of Atlanta. Doctor Poer represented the American College of Physicians and Surgeons and made an excellent address.

The following members discussed the future possibilities of our association:

Miss Jane Van De Vrede, Doctor Hines, Doctor Coker, Mr. Franklin, Mr. Barker, Doctor Klugh, Doctor Oppenheimer, and Mr. Hudgens.

Miss Van De Vrede represented the American and Georgia State Nurses' Associations.

Menorrhagia Due To Hypothyroidism, By W. C. Waters, M.D., and George A. Williams, M.D., Atlanta, in Am. J. Obst. & Gyn. 23:489 (April), 1932.

Excessive bleeding is the menstrual disturbance most frequently associated with hypothyroidism, amenorrhea rarely, if ever, occurring when the thyroid gland alone is deficient in function. In patients of any age whose menorrhagia cannot be attributed to pelvic disease, a therapeutic test with thyroid gland administration should be given before more radical measures are instituted.

GEORGIA STATE NURSES ASSOCIATION

Officers

President—Miss Alice F. Stewart, R. N., Augusta.
 First Vice-President—Miss Dora A. Kershner, R. N., Macon.
 Second Vice-President—Miss Lillian Cumbee, R. N., Emory University.
 Secretary—Miss Florence Pund, R. N., Augusta.
 Treasurer—Miss Jane Van De Vrede, R. N., Atlanta.
 Miss Jane Van De Vrede, R. N.
 Executive Secretary

District Presidents

First—Mrs. Dorothy Treacle, R. N., Savannah.
 Second—Mrs. B. Y. Vann, R. N., Thomasville.
 Fourth—Miss Lucia Massee, R. N., Cuthbert.
 Fifth—Mrs. Sue B. Paille, R. N., Atlanta.
 Sixth—Mrs. Sarah P. English, R. N., Sandersville.
 Seventh—Miss Shirley Hamrick, R. N., Cedartown.
 Eighth—Miss Lynda Bray, R. N., Athens.
 Ninth—Miss Ruby Falls, R. N., Gainesville.
 Tenth—Mrs. Olive Barbin, R. N., Augusta.

Headquarters

131 Forrest Avenue, N. E., Atlanta.

NOT ALL COMPARISONS ARE ODIUS

How nursing schools all over the country have benefited through participation in the grading which has been carried on by the National Committee on the Grading of Nursing Schools, and how Georgia schools stand in relation to those of other states, should be a subject of special interest to hospitals and the medical and nursing professions alike, as well as to the many others interested in an efficient care of the sick.

The five-year survey of the Committee was completed last December, and results of the first grading made known. A second grading is now going on, and significant progress has already been made. The Committee secured co-operation of 70 per cent of the schools of this country, or 1,458 in the first grading; while more than 79 per cent are now participating in a second grading. The Committee feels that the response has been a remarkable one "indicative of the truly great interest of the hospitals and training schools in learning about and in improving their own situations."

A number of states, including Rhode Island, Louisiana, Montana, Wyoming, Colorado, New Mexico, Delaware, Virginia and the District of Columbia, have a 100 per cent record in that every accredited school is taking part.

Five Georgia schools which are not participating are preventing this state from being 100 per cent in this second grading.

Some of the salient facts brought out in the last grading are:

Outstanding improvement in the number of hours of theory given students, about 130 more hours now being given.

Marked increase in the amount of vacation granted students, 43 per cent now giving three weeks or more a year, and more than three-fifths allowing more than two

weeks' vacation. Georgia schools are lax in this regard, most of them giving only two weeks.

The number of schools employing at least one instructor has increased from 42 per cent to 51 per cent. Georgia schools are still at the lower level. As rapidly as possible all schools should have one instructor each, at least.

There is marked increase in the proportion of students who have completed high school before entrance to nursing schools. All students now entering Georgia schools of nursing are required to have the equivalent of four years of high school; in the schools reporting to the Grading Committee 96 per cent of the students are full high school graduates.

One fact disclosed by the grading committee shows that business women, factory workers, college students and even servants have more leisure time than do student nurses. In six per cent of the schools student nurses work eight hours per day, seven days of the week. In 89 per cent of the schools the working week is forty-nine hours or longer, and in nearly half of the schools it is fifty-two hours. In Georgia, long hours apply, though the Board has fixed a minimum week of fifty-six and an optimum week of forty-eight hours.

In only fifteen per cent of the schools is there a reasonably satisfactory night duty service for students. The Georgia Board has fixed the minimum night duty requirement at ten hours or seventy hours per week. There are constant infringements of this important consideration for the welfare of patients as well as students. This is one reason why nurses fall asleep on night duty thus endangering the lives of patients. They should not be censured but the hospital should be. Many students work eighty-four hours

(Continued on Page 343)

WOMAN'S AUXILIARY

OFFICERS

President—Mrs. S. T. R. Revell, Louisville.
 President-Elect—Mrs. J. Bonar White, Atlanta.
 First Vice-President—Mrs. N. Peterson, Tifton.
 Second Vice-President—Mrs. C. Thompson, Millen.
 Third Vice-President—Mrs. J. W. Simmons, Brunswick.

Recording Secretary—Mrs. J. E. Penland, Waycross.
 Corresponding Secretary—Mrs. F. B. Rawlings, Sandersville.
 Treasurer—Mrs. Chas. Usher, Savannah.
 Parliamentarian—Mrs. Charles Hinton, Macon.
 Editor—Mrs. C. W. Roberts, Atlanta.

HEALTH PROGRAM

At the meeting of the House of Delegates during the annual session of the Medical Association of Georgia in Savannah, May 17-20, 1932, the following resolution was adopted:

"Be it resolved that the Medical Association of Georgia be asked to outline, at its sessions each year or as early thereafter as possible, a program for health education, and that it use the Woman's Auxiliary to carry the plan to all lay organizations and endeavor to secure their cooperation and gradually bring about a condition where all health work will be with the approval and under the general supervision of the Medical Association of Georgia."

In pursuance with the above resolution, Dr. B. H. Minchew, Waycross, Chairman of the Advisory Committee to the Woman's Auxiliary, called a meeting in Atlanta on June 23rd. Those present were:

Dr. B. H. Minchew, Waycross, Chairman
 Dr. Marian T. Benson, Atlanta
 Dr. R. V. Martin, Savannah
 Dr. S. T. R. Revell, Louisville
 Dr. Arthur G. Fort, Atlanta
 Dr. Marvin M. Head, Zebulon, President of the Medical Association of Georgia
 Dr. T. F. Abercrombie, Atlanta, State Director of Public Health.
 Dr. Joe P. Bowdoin, Atlanta, State Director of Child Hygiene
 Mrs. S. T. R. Revell, Louisville, President of the Woman's Auxiliary
 Mrs. J. Bonar White, Atlanta, President-Elect of the Woman's Auxiliary and a member of the Cancer Commission.

Mrs. N. Peterson, Tifton, State Chairman of Health Education and Public Relation, Woman's Auxiliary.

The following program was adopted:

Mother Welfare

This is to include important facts in regard to cancer and the study of Maternal Mortality and Infant Deaths.

There are to be three-minute talks on the following subjects to all lay organizations that desire to help carry out this work of the Medical Association of Georgia and Auxiliary::

Ellis Health Law

Periodic examinations (children on May Day; adults on birthday)

Sight conservation

Immunization against typhoid, smallpox, and diphtheria

Examination of servants

Vital statistics

Periodic examination of teeth and correction of defects

Degenerative diseases

In addition to this program, the Medical Association of Georgia will continue to sponsor Health Week to assist the P.-T. A. with their Summer Round-Up.

The Woman's Auxiliary will present this program to all lay organizations and if they wish to adopt it, the Auxiliary will work out details, the Medical Association and State Department of Public Health will furnish material for programs and supply speakers.

At the meeting of the House of Delegates in Savannah, the following resolution, introduced by Dr. C. W. Roberts, was adopted:

"WHEREAS, the major objective of the Woman's Auxiliary to the Medical Association of Georgia is concerned with health education, and

"WHEREAS, this activity is sponsored by the parent organization to which the Auxiliary is responsible for its stewardship; therefore, be it

"RESOLVED: That the President of the Woman's Auxiliary be invited to present through her chairman of public health activities, an annual report to the House of Delegates covering a brief resume of accomplishments."

Your President earnestly requests that every member of the Auxiliary will give of her best the accomplishments to this mission intrusted to us, so that when we are called upon to give an account of our stewardship before the House of Delegates, we need not be ashamed.

MRS. S. T. R. REVELL, *President*.

SWINDLER

The following communication has been received from one of our members, dated August 13, 1932.—EDITOR.

"About three weeks ago a man came to my office representing himself to be a salesman of Washington Surgical Company. This man gave his name as 'M. R. James' and sold me a bill of goods, taking a check for twenty-five dollars payable to the Washington Surgical Company as an initial payment. Have heard that he took several orders in this city on like terms with checks payable to the company and cashed them himself. After investigation, we are advised that there is no 'Washington Surgical Company'. The man is evidently a crook operating in the Southern States. If there is any way you can broadcast a warning through our Journal, it may be the means of saving other doctors.

"Description follows: Age about 35; height 5 feet 6 inches to 5 feet 7 inches; weight about 135; blue eyes; brown hair (becoming bald); cleft in chin.

"Please withhold my name."

BOOK REVIEW

Diseases of the Coronary Arteries (myocarditis). By Don C. Sutton, M.S., M.D., Associate Professor of Medicine, Northwestern University, and Harold Lueth, Ph.D., M.D., formerly instructor of physiology Northwestern University, Chicago. The C. V. Mosby Company, St. Louis, 1932. Pages 164, illustrations 42 and color plates 3. Price \$5.00.

Cardiologists are divided into two schools. One school retains the term myocarditis in describing the non-inflammatory lesions of the myocardium. The other school has discarded the term myocarditis and more specifically speaks of arteriosclerotic heart disease. The authors belong to the former school.

The book is divided into six chapters as follows: Symptomatology, Physical Examination of Arteriosclerotic Heart, Anatomy, Pathology, Physiology, and Pharmacology and Treatment.

While this book adds nothing new to our knowledge of this disease it does correlate what is now known about it. There is a fine bibliography of 213 references.

There are numerous electrocardiograms, diagrams, photomicrographs, and case reports.

The subject matter shows the result of much clinical experience, vast reading, and diligent work.

EVERT A. BANCKER, JR., M.D.

BOOKS RECEIVED

The Purchase of Medical Care Through Fixed Periodic Payment. By Pierce Williams of the staff of the National Bureau of Economic Research, Inc. Assisted by Isabel C. Chamberlain. Contains 308 pages. Publishers: National Bureau of Economic Research, Inc., 51 Madison Ave., New York City. Price \$3.00.

Diabetes in Childhood and Adolescence. By Priscilla White, M.D., Physician at the New England Deaconess Hospital, Boston, Mass.; with a foreword by Elliott P. Joslin, M.D., Clinical Professor of Medicine, Harvard Medical School; Consulting Physician, Boston City Hospital; Physician at the New England Deaconess Hospital, Boston, Mass. Contains 236 pages with illustrations and twenty-five engravings. Publishers: Lea & Febiger, Philadelphia. Price \$3.75.

The Practical Medicine Series—Comprising Eight Volumes on the Year's Progress in Medicine and Surgery. *Dermatology and Syphilis*, edited by Fred Wise, M.D., Professor of Dermatology and Syphilology, New York Post Graduate Medical School and Hospital of Columbia University, and Marion B. Sulzberger, M.D., Associate in Dermatology and Syphilology, New York Post Graduate Medical School and Hospital of Columbia University. *Urology*, Edited by John H. Cunningham, M.D., Associate in Genito-Urinary Surgery, Harvard University Post Graduate School of Medicine. Series 1931. Contains 472 pages. Publishers: The Year Book Publishers, Inc., 304 South Dearborn Street, Chicago.

The Practical Medicine Series—Comprising Eight Volumes of the Year's Progress in Medicine and Sur-

gery. *Obstetrics*, edited by Joseph B. DeLee, M.D., Professor of Obstetrics, University of Chicago Medical School; Attending Obstetrician and Medical Director, Chicago Lying-In Hospital and Dispensary. *Gynecology*, edited by J. P. Greenhill, M.D., Attending Gynecologist, Cook County Hospital; Associate in Obstetrics Northwestern University Medical School, Series 1931. Contains 665 pages. Publishers: The Year Book Publishers, Inc., 304 South Dearborn Street, Chicago.

The Practical Medicine Series—Comprising Eight Volumes on the Year's Progress in Medicine and Surgery. *General Surgery*, edited by Evarts A. Graham, M.D., Professor of Surgery, Washington University School of Medicine; Surgeon-in-Chief of the Barnes Hospital and of the Children's Hospital, St. Louis. Series 1931. Contains 804 pages. Publishers: The Year Book Publishers, Inc., 304 South Dearborn Street, Chicago.

The Practical Medicine Series—Comprising Eight Volumes on the Year's Progress in Medicine and Surgery. *Neurology*, edited by Peter Bassoe, M.D., Clinical Professor of Neurology, Rush Medical College of the University of Chicago. *Psychiatry*, edited by Franklin G. Ebaugh, M.D., Professor of Psychiatry, University of Colorado Medical School; Director, Colorado Psychiatric Hospital; Associate Director Division of Psychiatric Education, The National Committee for Mental Hygiene. Series 1931. Contains 471 pages. Publishers: The Year Book Publishers, Inc., 304 South Dearborn Street, Chicago.

NEWS ITEMS

The Whitfield County Medical Society met at the office of Dr. H. L. Erwin, Dalton, on July 21st.

The Fulton County Medical Society held its semi-monthly meeting at the Academy of Medicine, Atlanta, August 4th. The following titles of papers were on the scientific program: "Bronchiectasis—Report of Case Treated Bronchoscopically", Dr. B. McH. Cline, Atlanta; "Tuberculosis of the Sacrum—Case Report", Dr. Theodore Toepel, Atlanta; "Reflex Conditions", Dr. B. L. Shackleford, Atlanta; "Coronary Disease", Dr. Evart A. Bancker, Jr., Atlanta. Discussions were led by Dr. Hal M. Davison, Dr. Joseph C. Massee, and Dr. H. C. Sauls, all of Atlanta.

The First District Medical Society met at Hotel DeSoto, Savannah, August 3rd. Titles of scientific papers on the program were as follows: "Tic Dou-loureux—Case Report", Dr. L. W. Williams, Savannah; "Chronic Lead Poisoning, with Complete Laboratory and X-Ray Findings—Case Report", Dr. E. N. Gleaton, Savannah; "Accurate Hematology", Dr. Lee Howard, Savannah; "Albinism—Case Report", Dr. G. H. Lang, Savannah; "Massive Collapse of Lung", Dr. Chas. Usher, Savannah; "Carcinoma of Sigmoid—Case Report", Dr. M. J. Egan, Savannah; "Ureteral Stricture", Dr. L. W. Shaw, Savannah;

"Treatment of Hemophilia with Ovarian Substance—Case Report", Dr. R. L. Miller, Waynesboro; "Trans-Urethral Prostatectomy", Dr. William Shearouse, Savannah; "Chronic Duodenal Stasis—Case Report", Dr. C. F. Holton, Savannah; "Diagnosis of Dermoid Cyst by Means of X-Ray—Case Report", Dr. Robert Drane, Savannah. Luncheon was served at Hotel DeSoto.

The Ware County Medical Society met at the A. C. L. Hospital, Waycross, August 5th. Dr. B. H. Minchew, Waycross, read a paper entitled "Physiology of Squint". In addition to the scientific program, a business session was held and dinner served.

Dr. W. J. Burdshaw, formerly of Augusta, is now on the staff of the United States Veterans' Hospital, Perry Point, Md., as Medical Officer of the Eye, Ear, Nose and Throat Department.

The Eighth District Medical Society met at Madison on August 10th. The scientific program was composed of the following titles of papers: "Endometrial Hyperplasia", Dr. Paul L. Holliday, Athens; "Treatment of Abortions", Dr. Phil R. Stewart, Monroe; "Papilloma of Rectum", Dr. John A. Hunnicutt, Athens; "Hoarseness, A Symptom of Serious Import", Dr. W. H. Cabaniss, Athens; "Prostatic Resection", Dr. W. A. Upchurch, Atlanta; Address by Dr. Stewart D. Brown, Royston, President of the Society; Address by Dr. Marvin M. Head, Zebulon, President of the Medical Association of Georgia; "Infant Mortality", Dr. Linton Gerdine, Athens; "Maternal Mortality", Dr. S. S. Smith, Athens. Barbecue luncheon was served at noon.

Dr. J. Mason Baird, formerly of Wills Hospital, Philadelphia, announces his association with Dr. Grady E. Clay, Medical Arts Building, Atlanta.

The Twelfth District Medical Society met at Vidalia on July 7th. Titles for papers on the scientific program were as follows: "The Practical Treatment of the Common Neuroses", Dr. Cleveland Thompson, Millen; "Discussion of Some Interesting Clinical Material", Dr. Jno. W. Daniel, Savannah; "Rest and Exercise in the Treatment of Heart Disease", Dr. Ralston Lattimore, Savannah; "Amebiasis—Case Reports", Dr. H. M. Tolleson, Hahira; "A Clinical Talk," Dr. R. T. Dorsey, Atlanta; "Gastric and Duodenal Ulcer", Dr. Wm. R. Dancy, Savannah; "Pediatrics", Dr. J. Cox Wall, Eastman. Address by Dr. Marvin M. Head, Zebulon, President of the Association. Banquet was held at the Omberg-Berenice Hotel. Dr. J. W. Palmer, Ailey, was Toastmaster.

The Chattahoochee Valley Free Medical Clinic, West Point, formally opened on July 8th. The Clinic was organized and opened solely to care for the indigent sick. The public was invited to attend the opening and to inspect the building and equipment.

Dr. H. A. Mobley, Vienna, has been elected Commissioner of Health for Dooly county.

Dr. M. A. Fort, Bainbridge, Decatur County Commissioner of Health, has been in charge of the Department of Health for the county since 1925. The *Bainbridge Advance*, in a recent article, states that the people have learned that the Department of Health is one of their most valuable assets; that hundreds are accepting advice from the Commissioner and making use of the laboratory, not a case of smallpox, typhoid or diphtheria has occurred in any one who has been immunized. Tuberculosis clinics are held regularly by the Commissioner.

The Brooks County Board of Health organized a clinic for the treatment of venereal diseases. The clinic will be open on Tuesday afternoons. The physicians of Quitman will be in charge to examine and treat patients who are unable to pay for medical service.

The Randolph County Medical Society held its monthly meeting at Cuthbert on August 3rd. Doctor DeJarnette, Emory University, read a paper entitled "Arsphenamine Poisoning". Dr. W. W. Binion, Benevolence, and Dr. F. M. Martin, Shellman, gave case reports.

The Spalding County Medical Society met at the Strickland and Son Memorial Hospital, Griffin, on July 19th.

Dr. Murdock Equen, Medical Arts Building, Atlanta, announces the association of Dr. Stacy C. Howell, Atlanta, who will limit his practice to ophthalmology.

The Walter Ballard Optical Company, Atlanta, was recently elected to membership in the "Guild of Prescription Opticians of America." The company maintains stores in Atlanta at 105 Peachtree Street, N.E., Medical Arts Building and the Doctor's Building.

The Muscogee County Medical Society met in the Lecture Room of the City Hospital, Columbus, on August 11th. Dr. O. D. Gilliam, Columbus, read a paper entitled "Ruptured Appendix"; Dr. J. H. McDuffie, Jr., Columbus, "Amenorrhea"; Dr. A. N. Dykes and Dr. George S. Murray, both of Columbus, led the discussions.

The members of the Jackson County Medical Society were entertained at a basket dinner by the members of the Woman's Auxiliary to the Society at Potter's Grove on the Jefferson-Winder highway on August 1st. Dr. A. A. Rogers, Commerce, read a paper on "Skin Diseases".

Dr. W. W. Chrisman, Macon, has been at Barnes Hospital, St. Louis, Mo., for several weeks taking postgraduate work.

The Macon Medical Society (Bibb County) met on August 2nd. Dr. C. H. Richardson and Dr. O. H. Weaver, both of Macon, gave case reports. Dr. A. R. Rozar, Macon, discussed "Fractures in and Around the Elbow".

COMMUNICATIONS

To the Editor:

It is certainly a very great pleasure to observe the changes of attitude in the Medical Association of Georgia concerning the importance of the mental disease problem, and the psychoneuroses. The mental side of medicine should be stressed continuously.

GEORGE L. ECHOLS, M.D.

Milledgeville, July 25, 1932.

SOUTHERN PEDIATRIC SEMINAR

To the Editor:

Just a line to thank you again for the scholarship to the Southern Pediatric Seminar at Saluda, N. C.

Had a nice trip and found the work very helpful and instructive. Feel that I have been greatly benefited, both professionally and physically, as the climate is delightful. If a fellow does not learn a great deal, it is his own fault.

Dr. Wm. A. Mulherin, Augusta; Dr. T. E. Rogers, Macon; Dr. C. P. Savage, Montezuma, and myself attended from Georgia. There were possibly others with whom I was not acquainted.

D. W. F. MALOY, M.D.

Milan, Ga., August 6th.

OBITUARY

Dr. George McCallum Niles, Atlanta; member; Bellevue Hospital Medical College, New York City, 1886; aged 67; died at a private hospital on June 5, 1932. He was born in Marshallville and began the practice of medicine there. Doctor Niles attained prominence in the treatment of diseases of the stomach and pellagra. A book written by him a number of years ago has been considered authority on the treatment of pellagra. Doctor Niles was a member of the Fulton County Medical Society, American Medical Association, Business Men's Evangelistic Club, and the Baptist Church. Surviving him are his widow, two daughters, Mrs. E. F. Booth, Atlanta, and Mrs. Hollis Fort, Americus; one son, George C. Niles, Atlanta. Funeral services were conducted by Dr. Ellis A. Fuller and Dr. Luther Rice Christie from the chapel of Awtry & Lowndes. Interment was in West View Cemetery. Members of the Fulton County Medical Society formed an honorary escort.

Dr. William A. Drane, Buena Vista; University of Georgia Medical Department, Augusta, Ga., 1886; aged 72; died at his home on June 6, 1932. He had practiced medicine in Marion County for forty-six years. Doctor Drane was a public-spirited citizen, possessed a brilliant intellect and many noble traits of character. Surviving him are one son, W. E. Drane, Columbus; four daughters, Mrs. Mary Lou Jordan, Ellaville; Mrs. Minnie Burt, Americus; Mrs. Marguerite Lowe, Buena Vista, and Mrs. Elizabeth McMichael, Buena Vista. Funeral services were conducted from the residence by Rev. C. R. McKibben and interment was in the Buena Vista Cemetery.

Dr. Patrick Cleveland Simmons, Arlington; Georgia College Eclectic Medicine and Surgery, Atlanta, 1910; aged 53; died in a private hospital at Dothan, Ala., on June 5, 1932. He had practiced medicine in Arlington and surrounding community for twenty years. Surviving him are his widow, two daughters, Misses Warrine and Elizabeth Simmons; two sons, P. C., Jr., and John W. Simmons, all of Arlington. Funeral services were conducted from the Methodist Church by Rev. D. E. Blalock and Elder A. A. Garrett. Interment was in the Arlington Cemetery.

Dr. Millard F. Matthews, Athens; member; University of Georgia Medical Department, Augusta, 1895; aged 63; died at his home on June 25, 1932. He was a prominent physician and had practiced medicine in Athens and Clarke County for more than thirty years. Doctor Matthews possessed a genial disposition and endeared himself to all acquaintances. He was a member of the Clarke County Medical Society, Masonic Lodge and Presbyterian Church. Surviving him are his widow, one daughter, Miss Marjorie Matthews; one brother, P. T. Matthews, all of Athens. Funeral services were conducted from the residence by Dr. E. L. Hill, pastor of the First Presbyterian Church. Interment was in the Oconee Cemetery.

Dr. Wanzie W. Edwards, Butler; member; University of the South Medical Department, Sewanee, Tenn., 1899; aged 54; died at his home on April 27, 1932. He practiced medicine in Taylor and adjoining counties for more than thirty years. Doctor Edwards was well known and held in high esteem by people who knew him. He was recognized as an excellent physician and citizen. Interment was in the village cemetery.

Dr. John G. Slappey, Jeffersonville; Emory University School of Medicine, Emory University; aged 78; died at his home after an illness of several months' duration on June 27, 1932. He was county physician for Twiggs County for fifty-seven years. Doctor Slappey was a member of the Masonic Lodge and the Methodist Church. Surviving him are his widow, two daughters, Mrs. Mary A. Williams and Mrs. Morgan L. Whitehurst, both of Jeffersonville; four sons, Mark F., John G., Jr., and J. W. Slappey, all of Jeffersonville, and Robert C. Slappey, Macon. Funeral services were conducted from the Jeffersonville Methodist Church by Rev. C. D. Herrington. Interment was in the village cemetery.

Dr. Charles L. Tucker, Griffin; member; Southern Medical College, Atlanta, 1892; aged 65; died at a private hospital in Griffin on June 29, 1932. He was a prominent physician and enjoyed an extensive practice. Doctor Tucker had many friends in Spalding County. He was a member of the Spalding County Medical Society. Surviving him are his widow, three daughters, Mrs. J. Marion Stafford, and Mrs. Owen W. Daniel, both of Memphis, Tenn., and Miss Corrine Tucker, Atlanta. Funeral services were conducted by Rev. J. B. Turner from the Pittman Funeral Home, and interment was in the city cemetery at McDonough.

Dr. Edward W. Boyd, Atlanta; Emory University School of Medicine, Emory University; aged 56; died suddenly en route to his home at 1302 Oxford Road, N.E., on July 13, 1932. Surviving him are one sister, Miss Mattie Boyd; one brother, Roger Boyd, both of Atlanta.

Dr. James H. Latimer, Waycross; member; Emory University School of Medicine, Emory University; aged 62; died at his home after a long illness on July 13, 1932. He had been City Health Officer of Waycross for a number of years. Dr. Latimer practiced medicine in Ware and adjacent counties for many years and stood high in medical circles. He was physician and surgeon for the A. B. & A. railroad for a number of years. Dr. Latimer was a Mason, Shriner, Past Master of the Waycross Masonic Lodge; member of the Knights of Pythias; Ware County Medical Society and the Baptist church. Surviving him are his widow, two daughters, Miss Mary Latimer and Mrs. Robert Hurst, both of Waycross.

Dr. N. L. Grant, LaGrange; University of Georgia Medical Department, Augusta, 1904; aged 57; died suddenly of heart disease at his residence on July 23, 1932. He was born near Shiloh in Harris county and educated at the University of Georgia, Athens. Dr. Grant was held in high esteem by a large circle of friends. He was a member of the First Methodist church. Surviving him are his widow, two daughters, Misses Mary and Martha Grant, both of LaGrange; two sons, James Grant, Charlotte, N. C., and William Grant, LaGrange. Funeral services were conducted by Rev. L. M. Twiggs and interment was in the cemetery at Durand.

Dr. Charles J. Vaughn, Atlanta; member; Emory University School of Medicine, Emory University, 1893; aged 75; died at a private hospital after an extended illness on July 21, 1932. He practiced medicine in Atlanta for almost forty years. Dr. Vaughn served eighteen years from the Fourth Ward as city councilman and was Chairman of the Police Commission for eight years. He was one of the original founders of the Westminster Presbyterian church and had been a prominent member of a number of secret organizations. Surviving him are one son, Dr. Harry J. Vaughn, Atlanta, and a niece, Mrs. L. J. Blanton, Atlanta. Funeral services were conducted from Spring Hill Chapel by Dr. S. S. Daughtry. Interment was in Oakland cemetery.

Dr. W. L. Wade, Parrott; aged 59; died at his home after a long illness on July 19, 1932. He was a well-known retired physician. Dr. Wade enjoyed an extensive practice for many years and was favorably known by the people of Terrell and adjoining counties. Surviving him are his widow, two sons, R. L. and Edward Wade, both of Atlanta. Funeral services were conducted from the residence by Rev. W. W. Hill, Pastor of the Parrott Methodist church. Interment was in the village cemetery.

Dr. William Tatum Pace, Smyrna; member; Georgia College Eclectic Medicine and Surgery, Atlanta, 1887; aged 70; died at a private sanitarium at Marietta on July 26, 1932. He was widely known and a prominent physician. Dr. Pace served two terms as representative of Cobb county in the General Assembly of Georgia, at one time Commissioner of the county, and many times Mayor of Smyrna. He was a member of the Cobb County Medical Society, Free and Accepted Masons, Shrine, and the Baptist church. Surviving him are one son, Dr. John Sidney Pace, Marietta; three daughters, Mrs. H. O. Williamson and Mrs. J. R. Pruitt, both of Smyrna; and Mrs. J. S. Thompson, Atlanta. Rev. V. L. Bray conducted the funeral services from the residence. Interment was in the Gresham cemetery in Cherokee county. Members of Nelms Lodge, F. & A. M., and the County Medical Society formed an honorary escort.

NOT ALL COMPARISONS ARE ODIIOUS

(Continued from Page 338)

weekly on night service. Schools are urged to provide an eight-hour night service for students. There is a tendency toward an eight hour day, the committee finds.

Interesting figures presented in the 1930 census report list comparisons of nursing service to population in the United States.

Georgia's population increased only 0.4 per cent from 1920 to 1930, according to the Census; but the percentage of increase in trained nurses in that period was about 65 per cent.

The per cent of untrained nurses between 1920 and 1930 was eight per cent in Georgia.

In 1930 there was one trained nurse for every 744 people, or one trained or untrained nurse for every 412 people. In the typical family in this state there are 4.4 persons, and there are 93 families per nurse, trained and untrained.

Out of 311,939 women wage earners in Georgia, one out of every 44 is a nurse. 98 per cent of the trained nurses in Georgia are American born.

SIMPLIFYING SUMMER INFANT FEEDING PROBLEMS

Vacation travel presents fewer difficulties in caring for infants on S.M.A. Instead of using milk from dairies of unknown standards, the mother in feeding S.M.A., is using a food made from milk which her physician knows to be produced under strict sanitary requirements and rigorous inspection.

Refrigeration is unnecessary because individual feedings of powdered S.M.A. may be made up as needed. If the supply runs out, S.M.A. is available virtually everywhere in the United States in prescription pharmacies from Skowhegan to Hollywood. S.M.A. is not a grocery product for adults, but a scientific anti-

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OFFICERS AND COMMITTEES OF THE ASSOCIATION—1932-1933

NEXT ANNUAL SESSION, MACON,
MAY 9-10-11-12, 1933

Officers

President—Marvin M. Head, Zebulon.
President-Elect—C. H. Richardson, Macon.
First Vice-President—A. A. Morrison, Savannah.
Second Vice-President—D. H. Garrison, Tate.
Secretary-Treasurer—Allen H. Bunce, Atlanta.
Parliamentarian—John W. Simmons, Brunswick.

Delegates to the A. M. A.

William H. Myers, Savannah (1933-4).
Alternate, Wm. A. Mulherin, Augusta.
C. W. Roberts, Atlanta (1933-4).
Alternate, M. C. Pruitt, Atlanta.
O. H. Weaver, Macon (1932-3).
Alternate, C. K. Sharp, Arlington.

Council

C. L. Ayers, Toccoa, Chairman.
M. M. McCord, Rome, Clerk.

Councilors

1. William H. Myers, Savannah (1933).
2. J. A. Redfearn, Albany (1933).
3. J. C. Patterson, Cuthbert (1933).
4. O. W. Roberts, Carrollton (1933).
5. W. A. Selman, Atlanta (1934).
6. K. S. Hunt, Griffin (1934).
7. M. M. McCord, Rome (1934).
8. H. M. Fullilove, Athens (1934).
9. C. L. Ayers, Toccoa (1935).
10. S. J. Lewis, Augusta (1935).
11. J. E. Penland, Waycross (1935).
12. J. Cox Wall, Eastman (1935).

Vice-Councilors

1. C. Thompson, Millen (1933).
2. R. F. Wheat, Bainbridge (1933).
3. Chas. A. Greer, Oglethorpe (1933).
4. W. H. Clark, LaGrange (1933).
5. Marion C. Pruitt, Atlanta (1934).
6. A. H. Frye, Griffin (1934).
7. W. H. Perkinson, Marietta (1934).
8. M. A. Hubert, Athens (1934).
9. Grady N. Coker, Canton (1935).
10. H. D. Allen, Jr., Milledgeville (1935).
11. K. McCullough, Waycross (1935).
12. E. B. Claxton, Dublin (1935).

COMMITTEES

Scientific Work

James E. Paullin, Atlanta, Chairman (1933).
William R. Houston, Augusta (1934).
Chas. E. Waits, Atlanta (1935).
Allen H. Bunce, Atlanta, Secretary-Treasurer.

Public Policy and Legislation

Dan Y. Sage, Atlanta, Chairman (1934).
A. R. Rozar, Macon (1933).
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(Continued from Page 343)

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SYMPOSIUM ON SINUS DISEASE

THE RELATION OF DISEASES OF THE NASAL ACCESSORY SINUSES TO SYSTEMIC DERANGEMENTS*

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Cincinnati, Ohio

May I ask your indulgence for a few moments while I emphasize a few of the pertinent facts pertaining to the nasal accessory sinuses themselves, before proceeding with the various systemic derangements caused by diseased processes in this region?

First of all, let me remind you of the fact that pathologically speaking, we recognize a serous, suppurative, and a mixed type of disease. Clinically, we see in the serous type a change in the mucous membrane of the nose, which is pale and has a tendency to polypoid swelling. There is a watery discharge, with frequent colds; and the mucous membrane of the sinuses is grayish-blue in appearance, with edematous infiltration, and is easily elevated from the bone. Microscopically, this type of disease shows infiltration with separation of the connective tissue bundles. In the suppurative variety, the mucous membrane of the nose is red; pus can usually be seen either on the floor or between the middle turbinate and the lateral wall or septum; and there is a tendency to crust formation. The mucous membrane of the cavities is microscopically smooth; whereas in the serous type there is swelling and polyp formation. Microscopically, in the suppurative variety, we see connective tissue proliferation with attachment to the bone at numerous places. The mixed form occurs when an infection takes place in a nasal sinus already containing polyps.

In order to understand many of the prob-

lems referable to this region, it is essential to look upon the nose as a reflex organ. The nose may be irritated from without, from within its own chambers, from some general systemic derangement, and lastly, through the sympathetic system in a psychoneurotic patient. Any obstruction to proper nasal respiration may be the means of producing a vicious circle in the nose, and causing hypersecretion of mucus. The greatest development of glandular tissue in the nose is found along the path of the inspired air, in the region of the tubercle of the septum and the anterior end of the middle turbinate. If, because of an obstruction, the air cannot enter this area, the secretion from the glands is not absorbed, and, in consequence, there is established a chronic irritation which may result in infiltration of tissues with subsequent involvement of the nasal sinuses. Any obstruction in the inferior meatus will prevent the escape of air along the normal channels; and, inasmuch as the expired air has no stimulating action on the glandular elements, there is established another vicious circle.

A word may be devoted here to one of the frequent symptoms of nasal sinus disease; namely, headache which may be the chief complaint without manifest disease of the sinus itself. This is often caused by the presence of an anatomic variation of one or more of the nasal sinuses, especially the ethmoid cells. Upward displacement of an ethmoid cell, for instance, may completely close the nasofrontal duct, and, because of improper ventilation of the frontal sinus, give rise to severe vacuum headaches. May I also remind you of the fact that mild pathologic changes in the nasal accessory sinuses may not give rise to any symptoms in a patient who is otherwise in good health. When the reverse is true, and there is some dysfunction of the immunity system, from whatever

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†Invited guest.

cause, then it is that the "locus minoris resistentiae" present in the nose become irritated, and diverse and sundry symptoms follow.

With this thought in mind, let us discuss briefly a few of the systemic dyscrasias which have an effect on the nose and its accessory sinuses. The two most frequent affections are hypothyroidism and chronic intestinal toxemia.

The thyroid is the great activator of metabolism, and when the fires burn low, foreign material is deposited in various parts of the body. In other words, hypothyroidism means infiltration. It is usually the result of long-continued toxemia from whatever cause. I am firmly convinced that the hypothyroid state is present in many individuals, and that the disease is also very common among children. A subnormal temperature, especially between four and six p.m., slow pulse, low blood pressure, and a minus basal metabolic rate should always make us suspicious that we are dealing with a patient whose thyroid gland is acting insufficiently. In the treatment of hypothyroidism, there is one thought that must always be in our mind; and that is, the more the patient requires thyroid extract, the smaller should be the dose, inasmuch as a large dose will liberate the mucin from the tissues too rapidly, so that the excretory organs cannot properly take care of the same, and symptoms of intolerance necessarily arise. Therefore, we must always remember to begin with a small dose, one-tenth of a grain once daily, if necessary; and to cease the administration of thyroid extract for one week when the temperature in the afternoon becomes normal, or the pulse reaches ninety-five beats a minute. We should also abstain from giving thyroid extract if a coryza appears, and if the patient suffers with symptoms of an acute pancreatitis—that is, pain in the epigastrium, vomiting, and local tenderness. It is also necessary in administering thyroid extract to a patient, to look carefully into the diet and any chronic intestinal toxemia that may be present.

A patient with a mild involvement of the nasal accessory sinuses will not respond well

to any sort of treatment if there is a co-existing chronic intestinal toxemia. Most individuals eat more food than their systems can possibly make use of. When the drainage system becomes deranged and the colon is nothing more than a cesspool, then there occurs a dysfunction of the immunity system, and bacteria readily enter the blood stream and affect the nasal mucous membrane, as well as other parts of the body. You are probably all in agreement with the thought that there is no more difficult disease to treat than chronic intestinal toxemia. A smooth diet, hygienic rules of living, massage, and exercise are all very often of great benefit.

The gouty arthritic diathesis, diabetes, syphilis, anemia, and allergy are also to be thought of in this connection. Gout is supposed to be due to insufficient or perverted metabolism. There is certainly something in the blood of these individuals which projects itself into different parts of the body—namely, joints, nerves, air passages, etc. Call it gout; call it arthritis, if you wish; but certain it is that the diathesis is present, and is not caused altogether by the presence of a focus of infection in various parts of the body. Meat and alcohol are frequent producers of gout in a hypersensitive individual.

Much has been written in recent years regarding allergy. The pertinent facts concerning this condition are a history of asthma, repeated attacks of bronchitis, chronic colds, vasomotor rhinitis, hay fever, and urticaria. Skin tests are not always satisfactory, first, because the skin does not have pronounced allergic properties until after puberty; and secondly, because we find many individuals who have a positive reaction for an innumerable number of foods. Our chief aim should be to uncover the cause of the hypersensitive disposition. Is it an endocrin dysfunction, a chronic toxemia, or an inherited disposition? We have not yet been able "to look beyond the mist that fills the valley" regarding allergy.

We have thus far discussed local disturbances of the nose and nasal sinuses, as well as a few of the general dyscrasias affecting the mucous membrane in this locality. Let us now direct our attention to the systemic

effects which may occur from the parts under consideration. I cannot refrain from beginning this part of the subject by saying a few words about what I consider the most important medical problem of today—namely, the constitution of the individual.

An individual reacts against certain irritations according to the character of his inner qualities, and these inner qualities we term constitution. This is not only true of human beings; it is also true of lower forms of life. For instance, a controversy may exist between two bacteriologists regarding a certain type of bacteria. On one side the claim arises that certain changes result from the action of bacteria. The other bacteriologist says that such is not the case; that the changes which he has observed are of a different nature; and still they both may be right, for it has been shown that bacteria of the same strain react differently.

The epidemic problem, for instance, is nothing more than the problem of the so-called "acute cold", and the study of the same must begin in the pharynx. Contact infection is never possible, unless the constitution of the individual is ready for it. Four children in one family may be exposed to measles at the same time. The first is seriously affected and dies; the second has a stormy time and recovers; the third has a mild attack; and the fourth does not become stricken. Again a question of the constitution of the individual.

Epidemics of so-called "influenza" are probably dependent largely on the constitution of the individual; on endemic weather changes; and on bacteria. Whenever there is a dysfunction of the immunity system, the patient is liable to have frequent infections. If it were not for immunity, most doctors would be dead in two years after beginning the practice of medicine. They could not throw off all the infections to which they are constantly exposed. At St. Moritz, in Switzerland, there is prevalent a streptococcus sore throat which usually attacks two-thirds of the people when they come up from sea level. This is probably caused by endemic weather changes which transform the normal streptococci in the throat to the hemolytic

variety, when people reach the higher altitude. If they do not come immediately from sea level, but gradually climb the mountains, this infection does not take place.

Systemic involvement from a focus of infection in the nose may occur:

- 1—As a result of toxemia.
- 2—By way of the alimentary tract.
- 3—Along the lower respiratory tract.
- 4—Metastasis, by way of lymph or blood.

The toxic action of streptococci which are harbored in the nasal accessory sinuses, or any other part of the human body, must be sought for in the hypersensitiveness of the individual to specific toxins of these organisms; and furthermore, in a disorder of the normal protective powers of the body against toxins. Much has been written in recent years concerning the various forms of insanity resulting from nasal accessory sinus disease. Probably one of the main factors in the instance of the disease is hereditary disposition. A toxemia which, in one man, may produce only malaise and lack of concentration, may in another person, predisposed to mental instability, produce insanity. Not only do these streptococcal toxins produce acute and apparently sudden attacks of mania, but they are also capable of producing an insidious and chronic form of disease, without any antecedent acute stage. Acute sphenoid sinus infections are very often the cause of a severe mental depression. The patients become fearful; have suicidal tendencies; and there is loss of memory and lack of concentration.

A marked gain in weight in many individuals, following a radical nasal sinus operation, makes it appear that a chronic toxemia was probably the cause of the patient's loss of weight. These patients also tire easily; suffer with insomnia; lack concentration; and are many times very irritable. Blood changes may or may not be present. Occasionally, we find a mild anemia; at other times, there is a lymphocytosis; but, following a period of acute exacerbation in the sinuses, we may find a marked leukopenia.

The headache associated with nasal accessory sinus disease may be caused by the toxemia accompanying an acute infection. It is

well to remember that the localization of pain by the patient is a most uncertain aid to diagnosis; but, on the other hand, pain on palpation is a sign of considerable value. Many times the headache is not the result of the nasal sinus disease, but is caused by pressure of an inflamed middle turbinate against the lateral wall of the nose. When the pressure is removed by infracting the middle turbinate, there often occurs immediate relief of pain. A faulty diagnosis is often made of frontal sinus infection when the pain is localized in the supraorbital region. Pain in this area is many times associated with maxillary sinus disease, and is the result of radiation from the infraorbital to the first branch of the fifth nerve. Pain of the severest type may be present in sphenoid sinus disease. It is situated in and about the eye and in the occiput. Cocainization of the anterior wall of the sphenoid will relieve the pain about the eye; but it is not until we cocaine the interior of the sphenoid cavity that the pain in the occiput is relieved. In such an instance, there is, in all probability, an affection of the vidian nerve which lies within the sphenoid cavity. Serous catarrh of the ethmoid labyrinth is frequently present; is often overlooked; and may be the cause of severe headache. A diagnosis of this disease many times is made possible only by infracting the middle turbinate and examining the ethmoid floor. Now it so happens occasionally that although there is present an ethmoiditis, this disease is not the cause of the headache. The rhinologist proceeds with an ethmoid operation. After the operation, the headache continues as before. The patient becomes discouraged and goes from one doctor to another, until finally someone, probably an internist, makes a careful examination of the muscles of the neck, and finds that the patient has a latent arthritis of the sternoclavicular joint. There is pain on pressure over the joint, and the muscles attached to this area have become hypertonic; and the hypertonicity of the muscles is the cause of the headache, in view of the fact that the occipital nerve, in its course through the sternocleido mastoid muscle, becomes irritated and occipital headache results. It is im-

portant for the general practitioner, as well as the rhinologist, in examining a patient with headache, to make careful palpation of the muscles of the neck. The painful spots are usually in the occipital region and along the central portion of the sternocleido mastoid muscle, over the sternoclavicular joint, and along the course of the trapezius muscle. These patients are not relieved by surgery alone, except occasionally if the focus of infection is in the tonsils or teeth. In most instances, these patients need careful massage of the muscles of the neck, which should be done not in a longitudinal way, but instead in a transverse manner by grasping the muscles with the fingers and making pressure over all painful spots, especially in the region of the occipital nerve and along the supraorbital margin. We have seen innumerable patients who were not relieved of their headaches until proper massage was instituted. The muscles of the neck of every patient suffering with headache should, therefore, in our examination receive the attention they deserve. As Hilton wrote many years ago, "Every pain has its distinct and pregnant signification, if we will but carefully search for it."

Hippocrates believed that stomach catarrhs have their origin in the head. In his book on "Airs, Waters, and Places" we find the following line, "Their bellies are subject to frequent disorders owing to the phlegm running down from the head". The alkalinity of the pus may cause a hypochlorhydria, and patients complain of indefinite pain and distress in the stomach. Zander has found that numerous flagellated protozoa find their way from the intestines into the stomach when there is an absence of hydrochloric acid. Patients suffering with an absence of hydrochloric acid very often also have a change in their salivary secretion, which may be the cause of a foul breath. We have frequently seen patients in whom there occurred a mucus colitis when they had an acute flare-up of a chronic antrum disease. Whether this occurs as a part of a general infection; is metastatic in origin; or is the result of an irritation of the vegetative nervous system is a question which cannot be satisfactorily an-

swered. That it at times enters the picture is a clinical observation. The same is true of appendicitis. Surgeons will tell you that during a so-called "influenza" epidemic, acute appendix inflammations are more frequent than at any other time of the year. The anatomist, Peter, was probably correct when he termed the appendix the "intestinal tonsil". The lymphoid tissue which is present in the appendix, undoubtedly makes it very vulnerable to infection both in a metastatic, as well as in a general way.

Selective localization, as reported by Rosenow, may explain lesions in various parts of the body. Rosenow reported a case in which repeated attacks of nephritis were associated with colds in the nose, and in which a focus of infection was found in the antrum. Cultures from this focus were injected into rabbits, producing lesions in the kidney in nine out of eleven animals. We have had the experience that latent disease of the maxillary sinus is very often the primary focus of chronic nephritis.

Many changes take place along the lower respiratory tract in nasal sinus disease. There may be a pharyngitis, laryngitis, tracheitis, bronchitis, asthma, or a bronchiectasis. Again quoting Hippocrates, who said, "Some cases of phthisis owe their origin to catarrh of the upper air passages". It is almost twenty-five hundred years since this thought was expressed by the Father of Medicine. It can truly be said "there is nothing new under the sun".

Acute inflammation of the pharynx and trachea is usually diagnosed as influenza. This is undoubtedly a correct diagnosis if the disease begins suddenly with a chill, followed by a high fever. It is not a correct diagnosis, in my estimation, if there is a gradual onset and rapid disappearance within a few days under suitable treatment. Mild infections of this type are, as a rule, the result of intestinal intoxication. The attacks recur at frequent intervals, and usually can be managed by catharsis, meat-free diet, and abstinence from alcohol.

It is the effect of a chronic disease of the nasal sinuses on the lower respiratory tract which mostly interests us. This may be the

result of a descending inflammation causing much thickening of the mucous membrane of the bronchii and the bronchioles. The narrowing of the bronchial tubes may be a predisposing cause of bronchial asthma, which readily occurs after an acute exacerbation of a nasal sinus disease. It is questionable if the vagus, which is unduly sensitive to stimuli, is affected by the presence of thickened mucous membrane in the bronchioles; or whether it is irritated from pathologic processes in the nose or elsewhere. Both factors may readily be the cause of the broncho spasm. Under normal conditions, the muscular balance of the bronchial tree is maintained by the antagonistic action of the vagus and sympathetic nerves. Irritation of the vagus causes contraction of the bronchial muscles, and sympathetic irritation, a dilatation. We can readily understand, therefore, that an irritation of the vagus will cause a contraction, and that a diminished action of the sympathetic nerve will do the same thing.

Clinically, we have seen many patients with asthma who were entirely relieved after the removal of all pathologic processes in the nasal sinuses. In many instances, there was present a pansinusitis on both sides which required radical operation on all sinuses, including an external frontal sinus operation. We have had far better results with our asthma cases since dealing with all sinuses in a radical way; and have come to the conclusion that better results, after nasal accessory sinus surgery, are obtained if the asthma is bacterial in origin, and there is a history of recurrent colds and bronchitis. When the attack, however, is ushered in with sneezing and profuse rhinorrhea, the case may be looked upon as allergic in nature. In this connection, it is well to mention that a number of persons show an allergy for aspirin; and, inasmuch as this drug is often taken to abort a cold, that the asthma may be entirely attributed to the allergic bronchitis from the taking of the aspirin.

Asthma is indeed a difficult disease to treat. There are so many factors that may be the causative agent in the production of the disease that the skill and diagnostic acumen of the physician are put to the severest

test. One thing to be remembered is that we must not be too highly elated when a good result is obtained immediately following any surgical intervention, whether it is in the nose or elsewhere in the body. We must wait at least three to five years after a nasal sinus operation before considering the patient as a "permanent cure". Distinct advances have been made in the past fifteen years in the management of this disease, and many steps forward have been taken in the right direction. It still remains, however, a difficult and mysterious malady—difficult, because it is many times a constitutional disturbance, to fathom which is the biggest medical problem of today.

A diagnosis of tuberculosis is often made when there is present a nasal accessory sinus disease which is the sole cause of the changes in the lower respiratory tract. A productive cough, fever, loss of weight, anorexia, are symptoms of both nasal accessory sinus disease, as well as pulmonary tuberculosis. Upon physical examination, fine rales may also be heard; and, as you all know, the skiagram is very likely to lead us astray. In many instances, it is by the bacteriologic examination of the sputum and feces alone that we are able to diagnose pulmonary tuberculosis, with the exception, of course, of the miliary and latent forms of the disease. We have seen many patients who have been treated for months, and in several instances, for years, for what was supposed to be pulmonary tuberculosis, and who were entirely relieved of all their symptoms after the radical removal of pathologic changes in an antrum or ethmoid sinus. It, therefore, behooves us in our examination of a suspected case of pulmonary tuberculosis, to exclude the upper respiratory tract as a causative factor in the production of the diseased process in the lung.

Blood stream infections are rare in nasal accessory sinus disease, but may readily take place if osteomyelitis occurs as a complication. Head infections very often spread by way of the lymph channels, affecting the glands on the floor of the mouth and the cervical glands. The thyroid gland may also become involved. It is a frequent observa-

tion that thyroid enlargements are painful on pressure. In these cases, an inflammatory process must be suspected. The pain on palpation is usually in the region of the trachea, the jugulum, and retromandibular space. The thyroid enlargement, as the result of nasal accessory sinus infection, may be caused by the presence of a toxemia thus disturbing the function of internal secretion; or the thyroid gland may be affected by contiguity. Inflammation of the small lymphatic glands adjacent to the thyroid capsule may, by the establishment of adhesions to the capsule, cause a collateral edema to take place in the thyroid, and thus lead to an enlargement of this gland. This explains the unilateral enlargement which often occurs.

Summarizing, it may be said that the nasal accessory sinuses play an important role in the causation of systemic derangements. The infection in the nasal sinuses is very often of a latent type, with frequent acute exacerbations, and consequently is often overlooked by the general practitioner who does not use the various instruments of precision necessary for the detection of disease within the cavities. Every practitioner should have his interest awakened in the subject sufficiently to make him think of it as a possibility when suspicious cases come before him. It is a sad commentary on modern medicine for the rhinologist to see patients who have had a bronchitis treated for several months by the general practitioner, without considering the nasal accessory sinuses as a cause of the infection of the lower respiratory tract. It is, furthermore, a great sin of omission on the part of the rhinologist, if he looks upon disease of the nose and its ramifying cavities as a local disturbance only, and ignores entirely the fact that many times there is present a constitutional derangement. They term us specialists of the ear, nose, and throat; it would be more to the point if we were just plain doctors who are making a special study of the ear, nose, and throat.

If I have given you a little food for thought, and if the importance of this subject has been impressed upon you, then the purpose of my paper will have been fulfilled.

Doctors Building.

THE SYMPTOMS AND DIAGNOSIS OF SINUSITIS*

F. B. BLACKMAR, M.D.
Columbus

Like acute rhinitis, inflammation of the sinuses is present at all ages, in all climates and at all seasons. In the winter it comes as a complication of the common head cold or is left by the infectious diseases. In the warm months swimming pools are the worst offenders. These are the acute cases. The great majority of them recover completely with no likelihood of recurrence. However, a few of these acute cases persist as chronic sinusitis which may be obvious or obscure. The diagnostic problems and the need for study of symptoms mainly occur in connection with obscure chronic cases. These sometimes present the greatest difficulty in diagnosis. Our examinations may vary in carefulness from the cursory glance of the cocksure to any amount of time, enlisting many diagnostic aids. Some men claim that they seldom find it necessary to use x-ray or other diagnostic aids but depend entirely on some one means of examination. Such expressions as "Nasal catarrh can't be cured" and "Once a sinus is operated upon it is necessary to keep on operating" often constitute evidence of our diagnostic failures.

The symptoms of acute sinusitis are frequently the same as those of a common cold. Nasal obstruction in maxillary sinusitis is much more difficult to relieve with ephedrine than in acute rhinitis and once the nose is opened it soon closes again. The ethmoid causes the next most obstruction to breathing often filling the nose with polypoid tissue in chronic cases. The frontals and sphenoids cause little or no obstruction.

Nasal discharge may only occur just as the patient gets relief. During the most painful and dangerous days of the infection pus is under pressure in the cavities and the nose may be entirely free from discharge. The quantity varies with the size of the cavity infected. The greatest quantity comes from the maxillary sinuses and the least from the

ethmoids. Discharge from the sphenoid sinuses flows of necessity down over the nasopharynx into the throat. That from the other sinuses may flow forward requiring blowing, or backward into the throat, depending upon the shape of the interior of the nose and whether the patient is recumbent or ambulatory. During the night it may accumulate and dry in the nasopharynx resembling flesh in its consistency.

A foul discharge, not the foul crusts of ozena, is more often found in antrum infections of dental origin. A foul odor and bone infection usually go hand in hand. Ordinarily sinusitis following rhinitis is a mucous membrane suppuration throughout. Caries and osteomyelitis in these cases are rare. Infections entering the antrum from around the teeth are associated with bone infection from the start: hence the tell-tale odor. If the symptoms point to the presence of a possible sinusitis and pus is absent in the nose, after shrinking, suction may bring out a stream of pus.

It should be assumed until proven otherwise that patients with a nasal cold and pain about the head have infected sinuses. "Neuralgia" in such a patient is often an excuse rather than a diagnosis. The differential diagnosis here is of greatest importance for, while heat will be of comfort in a case of neuralgia, it will increase any turgescence, obstructing sinus drainage, and may even make surgical drainage imperative. An ice bag on the contrary will be very poorly tolerated by neuritis but will often relieve turgescence sufficiently to allow drainage and so result in great relief.

Pain from infection of the maxillary sinus may appear as a sore cheek bone but often there is pain in the teeth or over the eye. Pain in the teeth is so common that many patients with long-standing antrum infection are often seen after they have had all their upper teeth on the involved side extracted.

The time of occurrence of pain from frontal and maxillary sinusitis is very characteristic. It begins at about eight in the morning and the patient becomes more comfortable in the afternoon. The sphenoid fills upon re-

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clining and the patient is most uncomfortable during the night.

Frontal sinus pain is intense and there is a tender spot under the brow near the nose.

Sphenoid pain is referred to the occipital region, behind and over the eye and around the ear. When sphenoid pain is most intense around the ear and there is otitis media also present, only part of the pain can be relieved by incision of the drum. The sphenoid is the sinus most likely to involve the optic nerve which runs alongside and as real eye pains often occur behind the eye and in the occipital region, the differential diagnosis may be as difficult as it is imperative. The differentiation in such a case may often be made more easily from the eye findings than from the examination of the nose and sinuses. Suppurative sinusitis is quite frequently a painless disease and in other cases where pain does exist its situation affords no clue whatever to the particular sinus affected.

In children pain is seldom a prominent symptom and of course in infants it cannot be determined.

Fever is almost always absent as long as the infection is limited to the cavity of sinus. Of course a streptococcic pharyngitis with sinus involvement may be associated with fever from the pharyngitis but not from the sinusitis. A temperature of 101° or more practically always means the presence of infection outside of the sinus and neighboring or remote complications should be suspected. An exception to this occurs in young children where fever may be the only symptom. Incidentally in children and infants, due to the small size of all other sinuses, the antrum is the only frequently infected sinus.

Other symptoms which must be mentioned even if they cannot be discussed in detail in this paper are defective vision, lacrimation, giddiness, mental dulness and confusion, insomnia, tinnitus, deafness.

So much for the symptoms. Now for the examination.

A first glance into a nose tells whether congestive swelling of the nasal mucous membrane is present. If the septum is obstructing the air current or pressing the middle turbinate down closing the sinus openings

this should be noted. However, few septa are perfectly straight and many deflections cause no trouble.

Septal deflection may cause or result from sinus infection. On the side to which it is deflected it may press the turbinate down closing the drainage openings of the sinuses. On the other hand long continued turgescence of the turbinates on one side may force the septum over, resulting in a deflection to the uninvolved side.

A stream of pus may be seen flowing from under the middle turbinate if the antrum or frontal sinus is involved. If the anterior ethmoid sinuses are diseased there may not be sufficient pus for a stream and we only notice an accumulation of pus under the middle turbinate. If the pus is present above the middle turbinate it is known to originate in the posterior ethmoids or sphenoids. With obstruction to the flow from a sinus there is pressure. It is pressure which is responsible for the layman's idea of sinusitis. It is only when pressure causes pain and nasal obstruction that he is willing to admit that he has sinusitis. With the pressure relieved he will insist that he only has a "touch of catarrh" and is afraid catarrh can't be cured.

Transillumination is something that anyone can easily do anywhere. It often gives valuable information in reference to the condition of the frontal and maxillary sinuses. Any clothes closet will serve as a dark room. If the patient can not leave his bed the examination must be made after dark. The early method of transilluminating the antrum was to place the bulb in the mouth and compare the illumination inside the right and left lower lids and the two cheeks. A much better way is to place the bulb on the lower lid and look for transillumination in the roof of the mouth on each side. In children transillumination is of less value than in adults because the light passes through the floor of the comparatively small antrum which is still thick, containing the tooth buds.

All teeth should be transilluminated. Here we run into trouble with the dentists. It is folly to work on an infected antrum over teeth with apical abscesses draining into the sinus. *Every tooth under an infected antrum,*

whose roots are dark on transillumination, should be extracted and not treated. Some dead teeth which prove to be causing the most trouble do not show bone destruction in the x-ray but are dark to transillumination. Probably an early release of pus into the antrum stops bone destruction which would otherwise show in the x-ray. I place more confidence in a dark shadow over the root of a tooth than a negative x-ray if it is under an infected antrum.

The following table represents the information to be derived from the combined use of the x-ray and transillumination of the antrum.

Neurologic surgeons state that patients suf-

was being made for the cause of recurrent pharyngitis, bronchitis or otitis media. Such a culture often shows staphylococci even with clear washings. This amounts to no more than puncturing the ear drum and is not even so apt to cause trouble. Yet because it is not commonly done it is feared. It can be done under ether in a child just before a tonsil and adenoid operation. At other times in children no more anesthesia is necessary than for incision of the tympanic membrane. Of course in adults an application of cocaine is sufficient.

Polyps may originate on the mucous membrane of the nose itself but in the great majority of cases they grow out into the nose

X-ray	Transillumination	Interpretation
Clear	Clear	No trouble present in antrum.
Dark	Dark	Pus in antrum. Chronic thickening of mucous membrane either with or without pus. Previous radical operation upon antrum. Tumor.
Dark	Clear	Polyps. Previous radical operation followed by healthy antrum. Dental cyst: "87 per cent of dental cysts can be diagnosed by the x-ray alone. None can be diagnosed by examination of any type without the x-ray." Johnson Arch. Otolaryng., April, 1927.
Clear	Dark	Acute inflammation of mucous membrane, but no long-standing disease, or large facial bones.

fering with cerebral tumor only come after one or more sinus operations have been performed.

High blood pressure at times causes pain which duplicates that from various sinuses. We can not be too slow about a sinus operation on a patient with high blood pressure. Nothing short of a demonstrated actual abscess would make me resort to surgery in such cases. Check these diagnoses with irrigation of the suspected sinus, plain x-ray pictures and lipiodine filling. If such a patient becomes impatient with the detail with which his case is being studied and goes to another doctor do not moan over the loss. The chances are that the pain will continue and the patient often feels that the wrong sinus was operated upon or that the operator just can not find the right one.

The injection of sterile normal saline into a child's antrum followed by aspirating and culturing is of great diagnostic help in cases where irrigation did not show pus and search

from the ethmoid sinuses or the antrum. The presence of nasal polyps means sinusitis until proof indicates otherwise.

Where polyps or a pale mucosa are present I can not urge you too strongly to remove a drop of mucus with a loop, place it upon a slide, make a smear with the end of a second slide and stain, just as though it were a drop of blood. Ten per cent or more *eosinophils* means an allergic nose. Seventy-five per cent of eosinophils is not uncommon. Half pus cells and half eosinophils is the picture of an allergic nose that someone has operated upon. Personally I prefer for others to perform extensive operations upon these allergic cases. It is better to limit surgery in such allergic noses to the removal of obstructing polyps or to the simplest non-mutilating drainage operations possible. When the cell count is made the bacterial flora should be also reported. Since adopting this as a frequent practice I have been surprised now and then by finding Vincent's organisms infecting

the nose. Such Vincent cases, if unrecognized, do not respond to any usual treatment and are hazardous for nasal surgery. Without a nasal smear examination, a diagnosis is impossible. If healing does occur it is slow, and extension of infection from the wound margins into the deep vessels is likely to occur.

Tuberculous infection of the nose with negative findings elsewhere occasionally occurs. I have accidentally stumbled across a few of these by the examination of smears from the nasopharynx.

A child was considered to be suffering from bronchial asthma. An examination of its nose as an etiologic factor was requested. There was mucus in the nose. X-ray pictures gave evidence of sinusitis. A cell count showed about half small mononuclear lymphocytes and half polymorphonuclears. There were no eosinophils. This evidence pointed away from nasal allergy. An acid fast stain of nasal secretions showed many tubercle bacilli. X-ray plates of the chest as well as physical examination were negative. A culture of the nasal secretions was also positive for tubercle bacilli. Sometimes patients develop pulmonary or laryngeal tuberculosis and only then a diagnosis of the etiology of the pre-existent nasal infection is made. As yet, I have not been able to find any particular appearance of the nose or sinuses which should of itself make one suspect tuberculous sinusitis and call for an examination for the presence of tubercle bacilli in these early primary cases. I hope some day to hear of some appearance in the nose which when recognized will warn us of the presence of tuberculous sinusitis. A history of exposure to infection and a lack of response to treatment should certainly call for a smear examination. A large percentage of tuberculous cadavers show the presence of active sinusitis. A case of pansinusitis impressed this upon me forcefully. I drained one sinus after another and recently pulmonary tuberculosis which had not been suspected became evident. On the other hand, another patient with pansinusitis was diagnosed as pulmonary tuberculosis by an internist. His chest was x-rayed and the diagnosis confirmed. The bacilli were not found in the sputum. He spent two years in a Denver sanatorium. They confirmed the diagnosis of pulmonary tuberculosis. After two years an epidemic of Vincent's angina occurred in this hospital. Two hundred cases were being treated at one time. This patient among others was found to have Vincent's organisms in the nose. This lead was followed up, a Vincent's pansinusitis was found and treated. Within six months he was back home at work again. He brought home with him a statement that he did not have tuberculosis and that they did not believe he had ever had it. Therefore besides cases of true and often unsuspected tuberculosis of the sinuses there are cases of non-tuberculous sinusitis which mislead the most expert into a false diagnosis of pulmonary tuberculosis.

In children, cervical adenitis often occurs as a result of sinusitis. Indeed it has been given great diagnostic significance when it occurs without inflammation of the tonsils and adenoids as an obvious cause.

Recurrent otitis media in the absence of diseased tonsils and adenoids should excite suspicion of the presence of sinusitis.

Pus under the middle turbinate points to the antrum, frontal or anterior ethmoids. The antrum may in some cases be eliminated as the source of pus by irrigation, either through an accessory opening, if present, or by puncturing its wall. It is not infrequent to suspect an antrum as the source of pus and get a negative irrigation. Such a misleading finding occurs when the quantity of pus is scanty, when it is adhesive to the sinus walls or when the antrum is full of polyps.

The following paragraph is taken from McKenzie's "Diseases of Ear, Nose and Throat".

Cases are encountered, and they are by no means infrequent, in which sinusitis exists, causing symptoms such as headache, trigeminal neuralgia, bronchitis or bronchopneumonia and general ill health, and yet in which no nasal symptoms and signs can be detected. There may be no history of purulent discharge from the nose; the turbinates may be normal in appearance; no pus may be visible anywhere in the nasal chamber; both transillumination and x-ray may show clear antra and yet one or both of these cavities may contain pus or polyps. If the surgeon requires certainty he must either open the antrum through the canine fossa or regard the antrum as infected unless a culture of the returned fluid is sterile.

In the United States, thanks to the use of radio-opaque oils, the diagnosis of these obscure cases, as above described, has been greatly simplified.

If a radio-opaque oil is injected it may be seen that the lining of the sinus is so swollen that the lumen may be practically obliterated and any pus formed must immediately flow into the nose without a chance to accumulate. Irrigation then does not bring the expected quantity of pus into the basin. If the antrum has been eliminated as the source of pus seen in the nose, the frontal duct may be probed to determine whether it is the source. If both are negative the ethmoid is left as the only source. This is the long established method of differential diagnosis. I prefer x-ray films early in the examination of every

suspected case. They result in no pain or trauma to the patient's nose, are quick and *if checked with radio-opaque oil* are exceedingly reliable.

Radio-opaque oils are vegetable oils carrying 20 to 40 per cent of organic iodine or bromine. Such oil is as opaque to x-ray as dense bone. The lumen of a sinus containing this oil appears as an opaque area surrounded by a clear area of soft tissue and this clear area is in turn circumscribed by the opaque bony wall.

These oils are used in two ways. The first information to be obtained is whether the sinuses are open or closed. A sinus with its opening obstructed may be filled with cystic polyps under pressure and give entirely negative findings to every examination except the use of these oils. When a normal uninfected sinus is obstructed, the air content is soon absorbed, resulting in a vacuum. This is a common cause of severe headaches. In some cases the obstruction is temporarily relieved by shrinking the nose and in others it is not. To obtain this information whether the sinuses are open or not the head is tilted down and the nose filled with 10 c.c. of one of the radio-opaque oils. Intermittent suction is used to draw the air out of the sinuses. In a normal nose, after a few pulls with the suction machine, the nose is seen to be free of oil. It has run out into the various sinuses. If all of the sinuses are obstructed all of the oil remains in the nose itself. This filling is done in front of the x-ray machine and pictures must be taken at once. The oil is seen to have entered the sinuses or not. If it enters the sinuses a thin, black line proves that the linings of the cavities are normal. If diseases are present the lining is thickened. If polyps are present the outline is irregular. If the oil does not flow into a suspected sinus, it is necessary to introduce it with a syringe and cannula. Then the interpretation of the pictures is made as just described.

Useless operations may help the pocket-book and establish a wonderful reputation for rapid postoperative healing, but they are destructive and painful to our personal professional egotism. Lipiodine has done more to prevent useless ethmoid, sphenoid and tur-

binate operations than anything I know of. No matter what the symptoms are, what a plain x-ray shows, or what the *appearance* of the nose may be, an operation on a sinus can only insure a patient ventilation or removal of pathologic contents. Radio-opaque oils freely flowing into such a sinus by displacement proves that the opening is sufficient. The appearance of the x-ray shadow may prove that the sinus mucous membrane is of normal thickness. If this can be demonstrated, contrary findings are certainly artefacts and an operation is not necessary. Ethmoid operations will be indicated much less often than formerly was the case if examined in this way and the maxillary sinus is found to be an even more frequent offender than we suspected.

If a sinus is not in free communication with the nose, but after the oil reaches the lumen it demonstrates lack of pathology the only indication is for establishing communication with treatment or as little destructive surgery as possible.

In this paper I wish to leave one impression. The diagnosis of sinus disease is full of pitfalls. The greatest care is necessary if we are to avoid faults of omission as well as commission and there is *no one* method of examination which alone can be depended upon.

ISOLATION OF BRUCELLA ABORTUS FROM TONSILS

Charles M. Carpenter and Ruth A. Boak, Rochester, N. Y., (*Journal A. M. A.*, July 23, 1932), isolated *Brucella abortus* from eight of fifty-six pairs of tonsils. They do not desire at this time to convey the impression that *Brucella abortus* is a cause of tonsillitis or of hypertrophied tonsils. Nevertheless, in experimental and domesticated animals the infection localizes in lymph and lymphoid tissue, frequently producing a focal or general lymphadenitis, as well as a splenitis. At the onset of many cases of undulant fever there is a reddening and injection of the fauces, pharynx, tonsils and peritonsillar tissue, not unlike that seen in an acute infection of the upper respiratory tract. Cervical adenitis is not uncommon. That these pathologic changes are specific of *Brucella abortus* infection is not known. The organism may invade the tonsil and multiply or accumulate there until the resistance of the host is decreased from fatigue or from disease, permitting its invasion of the blood stream. The most important deduction is that the presence of the organisms in the tonsils must be the result of ingesting dairy products containing *Brucella abortus*.

COMPLICATIONS OF SINUS DISEASE*

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Sinus disease is apparently becoming more prevalent, and likewise are its complications. This being true, it behooves us to recognize them and to render proper treatment.

It is thought that sinus disease has been more common since the influenza epidemic of 1918, although it may be that it is merely being recognized and diagnosed more frequently. Only a few years ago, most of the affections of the nasal passages were referred to as catarrh. One possible cause for the apparent increase is the steam-heated houses, where there is not sufficient moisture in the air. Undoubtedly this plays a significant part in some instances.

We have all been impressed with the fact that there has been an increase in upper respiratory infections within the past few years and that they are often associated with rheumatic pains in other parts of the body.

According to Hajek, transmission of sinus disease may occur by any one, or more, of the following processes: (1) Thinness of the dividing bony walls. (2) Dehiscences. (3) Venous anastomoses.

When complications of sinus infections occur we should be able to recognize them and to give them prompt attention. The ones that we see most often are the orbital, ocular and cerebral.

The orbital complications are perhaps the most common and are often due to a thinness or breaking down of the dividing bony wall by a suppurative or malignant condition of one or more sinuses. In my own limited experience, I find the ethmoid sinuses to be most often responsible, although some observers place the frontal first.

When one visualizes the anatomy of the sinuses and their relation to the orbit, it is not hard to understand the manner in which infections may involve the orbit. As would be expected, the blood stream is the commonest means of transmission. This is

brought about through anastomoses and perforating veins.

The periorbita offers resistance to infections, and prevents a great number of orbital complications. Unless this is ruptured, suppurative processes cannot invade the orbit.

An orbital abscess first manifests itself by swelling of the lids and chemosis of the conjunctiva. This is followed by impairment of motility and later by proptosis of the globe. Vision may be greatly impaired as the result of involvement of the optic nerve. As soon as a diagnosis of orbital abscess is made, drainage should be prompt and thorough. Since most often the ethmoid sinuses are the offending ones, an incision deep into the apex of the orbit is made along the nasal wall; care being taken not to injure the internal rectus or the superior oblique muscles. In addition to this, drainage of the affected sinus should be secured through the nose. Vision is lost in too many instances because of procrastination or mistaken diagnosis.

Conjunctival and corneal conditions sometimes occur as a result of a sinus infection. The infection extends along the nasolacrimal duct to the conjunctiva, by continuity and contiguity, and the resulting inflammation may be catarrhal or purulent, depending upon the nasal condition. In all cases of unilateral conjunctivitis which recur and are rather persistent, we should suspect the lacrimal sac, and in turn the nose. It is surprising to see how well these cases respond to irrigation of the sac and to shrinkage of the nasal mucous membrane.

Iritis sometimes occurs as the result of sinus infection, but very rarely. Choroiditis has been reported due to sinus disease, but it is rare.

The optic nerve is sometimes involved in sinus disease, and has been the subject of a great deal of controversy as to its frequency of involvement. Reports of some authors estimate it as low as 4 per cent and others as high as 35 per cent, so the truth probably lies somewhere between. There are several reasons for this wide difference. One is that some men refuse to admit that the sinus is responsible for a retrobulbar neuritis unless frank pus is demonstrated in the sinuses.

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Another reason is that when vision has been restored following the opening of a hyperplastic ethmoid for example, some men will claim that it was coincidental and that it would probably have cleared up anyway, and they will cite instances to prove their contention.

Retrobulbar neuritis may precede other symptoms of multiple sclerosis by many years, and this fact often obscures the picture. Multiple sclerosis is not a common disease, and certainly not so common that we should try to consider it as the cause of nearly all cases of retrobulbar neuritis. It is true that remissions occur in multiple sclerosis and that a case of retrobulbar neuritis may clear up after drainage of the sinus only to return again later, each succeeding attack leaving permanent damage to the optic nerve. Might it not be due, in some cases at least, to sinus disease with a recurrence of the infection? We know that once the sinuses are infected, they are susceptible to a recurrence and that this is true especially where there is poor drainage.

When one realizes the anatomic relation between the posterior ethmoids and sphenoids and the optic nerves, where bone the thickness of a piece of paper separates them in many instances, it is not difficult to understand how easily the optic nerves can be involved. This bony wall is in some cases defective, so that as a result the mucous membrane lining the sinus comes into actual contact with the optic nerves. Even an extremely mild inflammation of the optic nerve will cause impairment of vision; whereas an analogous inflammation in the sinuses may cause no symptoms. This accounts for the many cases of retrobulbar neuritis which clear up after drainage of the posterior sinuses even though only hyperplasia is found. When frank pus is found there is little room for doubt as to the infection. Many sinus infections are due to strains of streptococci which do not tend to disseminate.

Involvement of the optic nerve may be in the form of optic neuritis, retrobulbar neuritis or papillitis, depending upon the part of the nerve involved.

Cerebral complications, as would be ex-

pected, are the most dangerous of all. Those which may occur are: (1) Circumscribed pachymeningitis, (2) extradural abscess, (3) intradural abscess, (4) brain abscess by extension from intradural abscess, (5) leptomeningitis, (6) thrombophlebitis—chiefly of the cavernous and lateral sinuses, and (7) serous meningitis.

The general symptoms of brain abscess are headache, vomiting, dizziness, apathy, lethargy, irritability and various psychic disturbances. Optic neuritis and choked disc have been frequently noted. Their presence with an existing accessory sinus infection points to a cerebral complication. Localizing symptoms are usually absent.

In cavernous sinus thrombosis, the symptoms are edema of the lids, chemosis, exophthalmos, papillitis and immobility of the globe which is bilateral and is always fatal.

The men practicing general medicine should be familiar enough with the above mentioned complications to know how to diagnose them, and to know when to ask for consultation. Only through close co-operation between physicians in different fields of medicine can we hope to do the best for our patients, and after all that is the end towards which we are all striving.

RELATION OF PRIVATE MEDICAL PRACTICE TO PUBLIC HEALTH IN EUROPE

FRANK G. BOUDREAU, Geneva, Switzerland (*Journal A. M. A.*, August 27, 1932), reports the results of a study which shows that in the principal European countries today, society is recognizing to an ever increasing degree its public responsibility for the health of all classes. The public authorities are laying increasing emphasis on the adequate provision of medical treatment as the basis of the public health. The private practitioner is being drawn yearly into a closer relation with the government and its public representative authorities. No difference of opinion can be held as to these facts. This change in the relationship between society and the doctor has from time to time created friction and dissatisfaction, usually most intense at the beginning of any social or medical reform. This dissatisfaction has died down, as a general rule, with the passage of time and the introduction of modifications suggested by practical experience. The least dissatisfaction is found where the medical profession is conversant with public social and medical problems and is united into strong but not narrow professional groups, and where the public authorities keep the doctors in touch with the purposes of their proposals.

TREATMENT OF SINUSITIS*

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After years of study and work on this frequent and widespread disease, we must admit that we know discouragingly little about sinusitis and our treatment often plays a pathetic role in the process of repair which nature institutes and effectively pursues. Some patients suffer intensely from sinus infection where symptoms are very insignificant, on the other hand some sinuses drain pus freely and continuously without any pain or discomfort to their owners. They present themselves one day in agonies of pain and on the next in elation over its absence, and we cannot detect any difference in those same sinuses from one occasion to the next. Often we open a sinus and find no pathologic changes present, yet the symptoms subside. On the other hand no relief is obtained from operative procedures and the symptoms are worse. For these reasons we cannot adopt any routine in the interpretations of our clinical findings or the treatment of our cases of sinusitis. We must apply three fundamental principles with every patient, namely: common sense, surgical judgment and the study of the individual.

The wave of radicalism in sinus surgery is on the wane and now we are realizing that more conservative treatment, such as immunization with vaccines or non-specific therapy, climate and diet are more efficacious than surgery in many cases.

Nature furnishes a protection in the early stages of a common cold by auto-immunization. If the patient's resistance is greater than the virulence of the invading organisms, the cold terminates uneventfully but if the virulence is greater than the resistance, the cold becomes a case of sinusitis. Thus we must keep our sinus patients in a state of health that is resistant to the existing infections in their community.

Vaccines, either stock or autogenous, have been used for several years by the profession. Sometimes we obtain miraculous results with vaccines and at other times they do no good. I would say that they have been beneficial

in about 50 per cent of the cases in which I have used them. Some have reported excellent results by local application of a vaccine filtrate in the nose and sinuses. The non-specific proteins are very valuable in acute sinus infections. Milk, lactogen, nuclein, aolan, activin and omnadin are the ones most frequently used. I think omnadin gives more immediate stimulation of immunity and its action neutralizes the toxic feeling of an acute respiratory infection. Two cubic centimeters may be given hyperdermatically daily for five to ten doses without any systemic reaction. Climate plays an important factor in sinusitis, especially the chronic infections. A change to a warmer climate with abundance of sunshine is always beneficial. If we would advise our patients to stop work and sit in the sunshine at their homes they would get well more rapidly.

The use of the ultra-violet ray over the body and applied into the nose through a quartz rod is a helpful therapy. The latter raises the resistance of the nasal mucous membranes. The value of diet in the treatment of nasal and sinus diseases has not been fully realized by the profession. Jarvis has done some extensive research work along this line during the past ten years and discloses the fact that when acid producing food represents the greater part of the daily food intake, there is an increase in the redness of the mucous membrane covering the cartilaginous portion of the septum, and often to a lesser degree, an increase in redness of that covering, the anterior tonsillar pillars and aryepiglottic folds, while there was an absence of this redness in individuals selecting most of their food from alkaline producing food. These patients were given an alkali and were instructed to select most of their diet from alkali-producing foods. It often required from three to six months of constant treatment to clear up the redness of the nasal mucosa. This predisposes sinus infection and it would be well to bear in mind.

In experimenting on rats it has been proven that sinusitis and other infections of the respiratory tract can be produced in four weeks by a vitamin A deficiency, whereas control rats fed on five drops of cod liver

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oil do not exhibit these symptoms. Cod liver oil should be given to all patients who have frequent colds and sinusitis, especially during the winter.

A disturbance of the endocrins will serve as a predisposing cause for sinus disease. When a hypo-ovarian or hypothyroid state exists, ovarian or thyroid extract should be prescribed.

There is a close relation between sinusitis and allergy, especially when vasomotor rhinitis and asthma are present. A careful history as to the environment, association with animals and birds, usages of perfume and face powder, drugs and foods is valuable. Skin tests to show the reaction of various pollens, foods, hair, dirt, etc., should be made and if any show a marked reaction, an extract should be given. The nasal treatment for allergic cases as stated by Coates is as follows:

(a) To free the nose from any infection present. This usually means draining the maxillary sinuses, the anterior ethmoid cells and at times the sphenoids.

(b) In case of asthma where sensitivity cannot be demonstrated, search for local sensitive spots and remove tissue that may be responsible for reflex symptoms by pressure.

(c) Proper ventilation and drainage of the nose should be secured as a measure for restoring the patient's general health.

(d) The preparation and administration of autogenous vaccines are of benefit after appropriate surgical procedures to eliminate remnants of infection and to overcome bacterial sensitization of the mucous membranes locally and the general allergic condition.

(e) The branches of the fifth nerve supplying the nasal mucosa may be blocked or the sphenopalatine ganglion itself may be injected.

(f) All these measures may be indicated at times to combat contributing and complicating factors, such as the chronic bronchitis of asthma and the secondary infections in the latter stages of a hay fever attack. Allergic treatment should first be instituted and carried out and then, in case of failure, surgery may be tried.

The patient should have a general physical examination and any other disease or disability should be corrected if possible. Chronic sinusitis often clears up when hyperacidity, constipation and gastrointestinal diseases are corrected.

The mucous membrane of the nares should be shrunken by topically applying 2 to 4 per cent solution of cocaine on a cotton applicator and placing a thin cotton pledget between the middle turbinate and septum if

necessary. Negative air pressure may be used to great advantage in removing the secretion from some sinuses. Alkaline sprays are useful for cleansing and removing crusts if one does not traumatize the mucous membrane. A lukewarm saline irrigation or syphonage cleans out the crusts and secretion from the nasal chambers and is soothing to the mucosa. Gently packing the middle meatus with a cotton tampon saturated with 20 per cent solution of mild silver protein is efficacious.

In acute maxillary sinusitis where the pus cannot drain easily, it should be irrigated. Insert a trocar and cannula under the inferior turbinate and push it through the naso-antral wall. Gently force normal saline solution into the antrum. This procedure should be repeated every day or two until the infection subsides.

After careful observation has been made for a reasonable length of time, a thorough diagnosis has been made of the various sinuses by clinical symptoms, physical signs, irrigation, repeated transilluminations and roentgenograms, and no marked improvement has been achieved from local treatment, then the surgical treatment must be considered.

Conservative surgical procedures in sinus disease, co-operating with natural defense and healing processes, frequently prove a tremendous value. In critical conditions they may turn the tide, averting a fatal outcome, by timely drainage of pus.

The objectives are to establish aeration and drainage.

The nasal septum is usually deflected in the majority of sinus infections so the first operative procedure is to correct any deformity that may be interfering with ventilation and drainage. Where there has been a marked obstruction, many of these infections will subside in due time.

The second operative procedure is to open the infected sinus or sinuses so that permanent drainage may be established and to remove polyps and diseased mucous membrane lining the cavities if they are present. The fact that there have been so many different operative technics offered by our profession to accomplish a cure for chronic sinusitis shows that we are still in the stage of experimentation. It

behooves us to err on the conservative side. Remember that a physician has never cured any person of disease. He can only aid nature in doing this job, and if he is not careful he will deter her in this accomplishment. The mucous membrane of the nose and sinuses has a valuable physiologic function, so conserve all of it that you can.

When the antrum and other sinuses are infected on the same side it is best to open the antrum first. I prefer to use local anesthesia and hospitalization, when practicable, with all sinus operations. A large opening is made under the inferior turbinate into the antrum. The turbinate is not disturbed any more than is necessary. The inner antral wall is removed from the floor below to the attachment of the inferior turbinate above. The cavity is carefully inspected with a Holmes nasopharyngoscope. If polypoid degeneration or great hyperplasia of the mucous membrane is found, the antral walls are carefully curetted and the contents removed with small curved forceps. It is surprising how thoroughly this may be done with proper instruments which may reach the seat of all mucous polyps. If all parts of this cavity cannot be reached, as is true in a few cases, then an incision may be made in the gingival region and an opening made through the canine fossa.

The ethmoidal sinuses always present a difficult problem when they are infected. Due to their close relation to the most vital structures in the nose we should deal with them most cautiously. Remove the middle turbinate except a small tip posteriorly and give the labyrinth time to be aerated and drained. It is better to lose any physiologic function than a diseased middle turbinate may have than not to restore function to the ethmoidal sinuses. I have used with tamponage mild silver protein in this area to great advantage after turbinectomy.

I do not think the ethmoidal sinuses can be properly treated by curetting between the middle turbanite and orbital plate. Adhesions soon form and this area is excluded from air more than before the operation.

The superior turbinate should rarely ever be removed, as it harbors the sense of smell.

If its physiologic function has been previously destroyed and the tissue is greatly degenerated, its preservation is not important. The sense of smell is a subject for special consideration in surgery of the ethmoid. The protection of the membrane lining the superior turbinate and the septum opposite it will preserve this sense. It is very embarrassing to the surgeon for the patient to lose this sense, but this will happen if the membrane lining the superior turbinate is destroyed.

The ethmoidal bulb and any outlying large cells should be opened and gently curetted but the chain of cells in the labyrinth should be left alone. This technic also lessens a great danger of intracranial complications which may result from blindly curetting in this irregularly shaped cavity.

The sphenoidal sinus is the least infected of the nasal accessory sinuses. The chronic inflammation of the sphenoidal sinus is less commonly found alone than in association with the post-ethmoidal group. There are two types, suppurative and hyperplastic.

The surgical treatment consists of entering the ostia, stripping back the mucous membrane and biting the bone so that the anterior wall will be well open. If the ethmoidal sinuses are involved, the middle turbinate should be first removed. If not, only the posterior third should be snared off. In many wide open nares the sphenoid may be opened well without interfering with the turbinate. The hyperplastic membrane may be gently curetted from the walls of the sphenoid.

The intranasal treatment of chronic empyema of the frontal sinus has not been so satisfactory in the writer's experience as that of the other accessory sinuses. However, a frontal sinus of moderate size which is free from septa and without extensive pathologic changes in the lining mucosa or osseous walls is usually amenable to treatment by the intranasal route. If the ethmoids are infected too, as more frequently is the case, the middle turbinate should be removed.

I have found the frontal operation described by Halle to be the most satisfactory. This enlargement of the nasofrontal duct throughout its entire course promotes drainage, permits a certain amount of curettage of

the interior of the sinus and renders it fairly accessible to lavage. I leave a hard rubber tube drain in the sinus for ten days after operation. If the symptoms continue after careful postoperative treatment in a fair length of time, I do the external frontal operation as described by Lynch.

Radical operations are usually indicated where there are malignant growths in the nasal sinuses. Radium and x-ray are also used in these cases.

The writer has used the combination of intranasal sinus operations for the past few years in over a hundred cases with good results. This combination has included submucous resection of the nasal septum, removal of the middle turbinate and opening and curetting the accessory sinuses. In using this method the operator must have good anesthesia and hemostasis, must not traumatize the surrounding tissue, must know his operative technic well and work quickly, and must not use intranasal packing. Occasionally it may be necessary to use a small wick of lubricated gauze in a sinus or nares. Hematomas are prevented by making a slit in the mucous membrane of the septum along the vomer. Secondary infections are rare, the patient is more comfortable, there is no more loss of blood than occurs by removal of packing.

The saving of time and expense of hospitalization is of great economic value to the patient. The criticism of the general physician that rhinologists have to do many nasal operations on their patients is also avoided. The postoperative treatment of intranasal accessory sinus surgery is very important and is fraught with many problems. The nares should be left alone for the first three or four days until the raw tissue begins to heal. Then the blood clots and scabs may be gently and gradually removed. The use of warm saline irrigation into the nose twice a day cleanses it out well. I apply 5 per cent mercurochrome solution into the nose and sinuses on a cotton swab once a day. In a week or ten days I prescribe a spray of camphor, menthol and oil of eucalyptus for the patient to use at home.

If adhesions occur they should be broken at once and a thin tampon should be placed

between the raw surfaces until they are healed.

If granulation or hyperplastic tissue recurs in the sinuses it should be cauterized. Frequent observation with Holmes' nasopharyngoscope is valuable. Do not be impatient. Give the sinuses several months to heal and you will realize that excellent results will be obtained by intranasal treatment in the same type of case in which formerly radical procedures were used.

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DISCUSSION ON PAPERS OF DRS. BLACKMAR, MARTIN, AND McDOUGALL

Dr. William Mithoefer, Cincinnati, Ohio (by invitation): The first thing I wish to emphasize is the fact that anatomic variations of the ethmoid cells may be the cause of severe headache, without pathologic change in the sinuses themselves. Skiagrams should be carefully studied before proceeding with an operation on the nasal sinuses. This is very important, inasmuch as latent orbital cell infection is a very frequent disease, and should be taken care of through an external route if the symptoms demand.

We are all in agreement with the thought that surgery of the nasal accessory sinuses has fallen into disrepute. This is because rhinologists do not agree on the method of surgical approach. Some are content to do a simple nasal operation to relieve nasal obstruction, hoping in this way to combat the nasal sinus infection; others proceed with an intranasal sinus operation; while some who are considered radical, approach the problem from an extranasal route. All three methods of approach should be used by rhinologists after a careful study of the case. We cannot hope, for instance, to do away with much pathology in an antrum by merely making a window under the inferior turbinate.

If possible, we should always preserve the middle turbinate. In removing the middle turbinate, we cut the olfactory sheath, and if there happens to be present a streptococcus hemolyticus infection, there is danger of a complicating meningitis because of the communication of the olfactory sheath with the arachnoid.

Irrigation of the antrum should not be done in the presence of fever. Neither should the antrum be irri-

gated again if, following the lavage, the patient has had a chill and fever or if there is present a fibrinous deposit in the nose at the site of puncture. We prefer the use of Ringer's solution for irrigation, and if reaction takes place, we substitute instead a mineral oil. We never use argyrol tampons. The tampons act by osmosis and saturating the same with Ringer's solution will be just as beneficial and less dirty.

May I repeat what I said in the beginning—that nasal accessory sinus surgery has fallen into disrepute? In order to understand better the proper method of surgical approach, we must carefully analyze and study each individual case. We must not forget that very often there is present some general dyscrasia which aggravates a mild sinus inflammation. Cure the dyscrasia, and the mild nasal sinus disease is many times under control. There is always a chief offender, and often the master sinus is the antrum. It makes no difference if the skiagram is negative, if lipiodol shows no filling defect of the antrum. If we are certain from our clinical observation that the antrum is diseased, we have a perfect right to explore this cavity as the first step of the operation, and to proceed from this region and attack every sinus that shows any involvement.

In chronic cases, especially in asthmatic patients, we must not hesitate to remove all pathology, and operate on all sinuses, including the frontal by the external route. In this way we have had far better results for the relief of asthma. The chief thing to remember is study the case well, and at the time of operation do as much as is humanly possible. Too many operations is one of the reasons for surgery of the nasal accessory sinuses falling into disrepute. In the presence of a latent sinus disease, it is more dangerous to do a septum operation and pack the nose than it is to deal radically with the sinuses at the time when the septum operation is performed.

One of the gentlemen mentioned gentle curetting of the sphenoid cavity. We find that the diseased membrane can readily be elevated if there is inserted into the cavity, for about ten minutes, a tampon saturated with a watery solution of 5 per cent picric acid and 35 per cent acetone.

My plea, therefore, is to desist from doing too many operations, and attempt to remove all pathology present on one side of the nose in one sitting, and to proceed with the other side at the end of a week or ten days. This method of procedure holds good only in chronic cases. In subacute cases milder and more conservative measures are indicated.

Dr. George H. Lang, Savannah: The question of sinus disease is always interesting for the rhinologist, and has in recent years become almost equally so for the man practicing general medicine. Just as infected tonsils, teeth, gallbladders, intestinal absorption and what-not may produce diseases in adjacent or remote parts of the body, it is equally true of these air spaces that border the nasal cavity when they become infected. A great deal has been written concerning the sinus and one can hardly pick up any journal dealing with rhinology and ophthalmology without finding the

subject discussed in one or more of its phases. Great strides have been made in the diagnosis and cure of these cases, but in some respects we are no better off than we were twenty-five or thirty years ago. What is the true physiology of the accessory sinuses? Great minds have pondered over it. Many have offered theories. Doctor Skillern, in his text-book, discussed six theories and admitted that no one of them will hold water. Why is it that many individuals who suffer severe infections in the nose never have any sinus disturbance, or apparently do not? Why is it that in many cases of acute sinusitis in the early stage the patients suffer agonizing or excruciating pain and other individuals never know they have a sinus until an examination is made in a routine way by a rhinologist? Why is it that some of these individuals respond to some simple forms of therapy while others baffle us in everything we attempt to do for them. The subject is far from closed.

Dr. B. H. Minchew, Waycross: After hearing the wonderful papers by our colleagues and the classic discussion by our guest, Doctor Mithoefer, I feel like quoting the words of a Scotch physician when he was asked to respond to a thesis prepared by a visiting English physician in Glasgow, "it is the custom of the forest after the nightingale has sung, the other birds remain silent for fear their chatterings will disturb the echo of real music." However, the essayists are our neighbors, and I feel like trying to discuss some of the points brought out in this symposium.

I want to mention a type of sinusitis that occurs as result of an obstruction by a hypertrophic middle turbinate. The turbinate may be cystic obstructing the opening into the frontal and the whole anterior group of ethmoids, producing the symptoms of headache with frequent discharges of foul matter as result of retention. This type of turbinate I am sure Doctor Mithoefer will agree should be removed in part.

I have seen recently a case of rudimentary maxillary sinus, giving all the symptoms of an acute infection, and indeed upon operation the small antrum was found to contain pus. The bony surroundings of this small cavity was chiseled away, and the usual opening made below the turbinate as in radical operation for drainage.

I have seen many complications occur as the result of an infection of the sinuses, one particularly, was an acute symptom of pressure at the base of the brain, following an acute frontal sinusitis, which complicated a tonsil operation a week previous. A decompression operation was done, and the child recovered. I have seen other brain symptoms, particularly that of meningitis, associated with ethmoid or frontal infections, and the picture is always pathetic.

In the simple drainage and irrigation of an acute maxillary empyema, I use a large trephine instrument in making the opening below the turbinate, then a smaller tube, or cannula, in the irrigation. This permits a return flow around the cannula, of the solution, as well as the thick mucilaginous contents, and will not be attended by the severe pain which is true if a tight

fitting cannula is used, with the only outlet for contents of the sinus through the ostium maxillary.

I was glad to hear Doctor MacDougall and Doctor Mithoefer condemn meddlesome surgery in the malignant conditions of the sinuses. The best treatment I have observed is the use of radium following an early diagnosis.

Dr. B. McH. Cline, Atlanta: It is most important that vaccines should be discontinued in the treatment of sinus conditions, as I believe they do a great deal more harm than they have ever done good. Every acute cold should be referred to an ear, nose, and throat specialist, when it involves the sinuses, throat, and ears. It is important that general measures, such as laxatives and diets be utilized, but the most important thing is attention to the turbinates; they should be shrunken so as to allow better ventilation and drainage to the sinuses. The patient should also be given belladonna and some coal tar sedative in order to make him more comfortable during the treatment. I do not think any acute antrum should be operated on until all other efforts have failed to give relief. I do not believe in the promiscuous removal of turbinate for I think they perform a most essential function, and therefore should not be removed until after everything else has been tried. Someone spoke of removing the middle turbinate in an ethmoid condition; they should not be removed for many reasons and especially because in an ethmoid operation they are valuable in preventing the operator from entering the cribriform plate and causing death to the patient.

In chronic sinus infections where operations are necessary, we should impress upon our patients the necessity of treatment before the operation and observation a long time after the operation.

Dr. L. C. Roughlin, Atlanta: These papers were impressive; they gave us the realization that sinus disease is not an entity and does not belong strictly to the rhinologist, as so often the rhinologist gets the patient from a general physician with the instruction, "Look over the sinuses and let me know the condition." I doubt if any man can do this unless it is a local condition entirely. We must realize that diseases of the sinus may be local or constitutional. When it is a local affair, as was beautifully shown by Dr. Mithoefer, it is entirely a mechanical condition and must be treated mechanically and not as a general disturbance. We often speak of complications of the sinus. I doubt seriously if anyone can prove complications of the sinus. I know that quite often the sinus condition is a complication of systemic disease. I think if we would speak of it in this way we would come nearer treating the sinus problem correctly. The question of surgery and choice of methods we can leave entirely out of consideration at present. As Dr. McDougall so happily stated, the important part is to study the patient along with the sinus. If we do that we will not fall into the error of doing too much surgery without knowing why and wherefore we are doing any particular operation.

I wish to impress upon you the necessity of the

cooperation of the general physician with the rhinologist in coming to a clear understanding of the etiologic factors of so many sinus diseases. Get a complete history of the case, give a thorough examination, take your time to make a complete study, and then decide upon the treatment best suited to the case. If you decide upon surgical measures, as our distinguished guest said, use them thoroughly and completely.

Dr. William O. Martin, Jr., Atlanta (closing): As an ophthalmologist, I wish to take this opportunity to impress upon the rhinologists, as well as the general men, the importance of prompt relief in inflammation of the optic nerve due to sinus infection. Close cooperation is essential in these cases.

Dr. Calhoun McDougall, Atlanta (closing): We feel honored to have Doctor Mithoefer present to discuss our papers. His pictures of anatomic anomalies are very helpful. I think every man should be acquainted with these before attempting any operation on the nose or nasal sinuses. I was very glad to hear his discussion on the treatment of sinusitis. I have used his technic in a few cases; when the ethmoids were curetted without removal of the middle turbinates, the results were not so good, often requiring a secondary operation. I do not think it is a great harm to sacrifice a small part of the middle turbinate, especially when it is diseased. I worked with Doctor Skillern for a long time and follow his technic in most of my sinus operations.

CHRONIC SEVERE ASTHMA: STUDY OF GROUP OF CASES REQUIRING HOSPITAL TREATMENT

Francis M. Rackemann, Boston (*Journal A. M. A.*, July 16, 1932), presents an account of twenty-five cases of asthma in which the condition was of maximum severity and was relieved only partially by ordinary treatment. In most of the patients, asthma developed between the ages of 30 and 50, the average age of onset being 38. Men and women were about equal in the group. In the hospital, none of these patients did well, although perhaps half of them improved a little during their stay. In each case, epinephrine was necessary at frequent intervals to control their symptoms. In searching for the cause of the trouble in these severe cases one can exclude extrinsic factors. Psychic factors are of secondary rather than primary interest. Focal infections are probably important. The incidence of a positive family history, of "other allergy," of positive skin tests, and of eosinophilia in the group of severe cases is comparable to the incidence of these factors in other groups, and this suggests a common background for all the groups. Allergy is the capacity to develop sensitiveness to foreign substances, the list of which is ordinarily restricted to those present in foods and dusts of all kinds, especially pollens and animal danders. The author can see no reason for this restriction and believes that cases depend on two principal factors: The one is the presence of a chronic infection; the other is the abnormal (allergic) reaction of the host to this infection.

A HISTO-BACTERIOLOGICAL STUDY OF SPUTUMS†

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Historical Note

It is difficult to find references that inform one of the earliest systematic studies of sputum. We may properly state that the clinical importance of this exudate is a story within itself, which gradually unfolds during a period of years beginning before the time of Hippocrates. Hippocrates paid particular attention to the urine and the sputum, and he described the association of the latter to phthisis and other diseases. Frequently he described the amount, color and consistency of the substance. Since his observations numerous other contributions have been made by Charcot, Leyden, Curschman, Ditt-rich, Koch, Villemin, and Baumgarten, all of whom have added valuable scientific facts.

Purpose of Study

A study of several hundred sputums obtained from various groups of patients was made to observe the common characteristics. An effort was made to determine the more common physical properties, the bacterial flora, the cellular contents, the presence of other abnormal constituents, and the presence of certain fungi. A group of these latter organisms was classified, and bacteriological and pathological observations made. Careful consideration was also given to those sputums in which tubercle bacilli were present, and a simple method for the concentration of tubercle bacilli was described.

Methods Used In Study

A. Collection of Specimens:

The sputums were obtained from one group of patients on medical and surgical wards, and another group from tuberculosis sanatoriums. The patients were instructed to rinse their mouths in order to avoid contamination. They were then told to raise the sputum by a deep pulmonary cough. The specimens were collected in sterile pasteboard cartons, and were immediately brought to the laboratory.

B. Procedure of Examination:

The first observation was the recording of the following characteristics of each sputum as noted by macroscopical examination: color, odor, tenacity, blood and pigment.

Smears were then made by the following

method: Several purulent or caseous particles were selected from the most homogeneous part of the sputum. They were placed on the upper half of a slide and pressed out with another slide. The two slides were rubbed together until the particles were thinly and uniformly distributed. The slides were then marked with a diamond-point pencil, dried in the air and passed through a flame in order to fix the smear. Three stains were employed: Ziehl-Neelsen for tubercle bacilli, Grams' stain for the other micro-organisms, and Wright's stain for cellular structures. In making the cultures, a loopful of the most purulent portion was streaked upon Sabouraud's medium, blood-agar and also on crystal-violet potato medium.

OBSERVATIONS ON SPUTUM FROM MEDICAL AND SURGICAL PATIENTS

A. Predominant Physical Properties:

The sputum from the majority of the patients on the medical and surgical wards appeared to be abnormal; fifteen per cent had no findings of any interest; thirty-five per cent were of a green or light green color; seventeen per cent were gray; thirteen per cent were brown. Thirty-four and six-tenths per cent had a foul odor. The average consistency was about a three plus tenacity. Twenty-nine per cent of the sputums contained blood. Fifty-five per cent of the specimens showed a pigment.

B. Predominant Organisms:

The percentages of the different micro-organisms found in the smears were as follows:

	PER CENT
Pneumococci (typical diplococci).....	90
Streptococci (chain forms)	67.7
Staphylococci	55
Mc. Catarrhalis	25.5
Yeast	23
Fusiform bacilli	20
Spores	11
Influenza bacilli	10.5
Gram positive bacilli (unidentified)....	10
Gram negative bacilli (unidentified)...	10

The micro-organisms recovered from the sputums by culturing on blood-agar plates were:

	PER CENT
Pneumococci	80
Streptococci	40
Mc. Catarrhalis	39
Staphylococci	30
Gram negative bacilli.....	12.3
Influenza bacilli	12
Yeast	8.9
Gram positive bacilli	4.5

C. Unusual Organisms:

The most interesting observations noted from the culturing of the sputums on blood-agar plates was

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the presence of hemolytic organisms. Of the 100 patients studied on the medical and surgical wards, only four per cent had hemolytic organisms present. However, in the group of tuberculous patients, which will be discussed later, eighty-six and five-tenths per cent had hemolytic organisms present in their sputum. This one fact may be of ultimate value in treating cases, or in finding a method of aid in preventing tuberculosis. The high percentage of fusiform bacilli was most interesting, as in no instance was lung abscess diagnosed in a patient.

D. Cellular Contents.

The differential counts revealed the following types and percentages of cells:

	PER CENT
Polymorphonuclears	83.5
Lymphocytes	13.3
Mononuclears	1.6
Myelocytes	1.55
Eosinophiles .....	.6

From a comparative standpoint, it is noteworthy that in the sputum of these patients with varying types of diseases the leukocytes are more numerous. The other types of cells, excepting the epithelial cells which were present in sixty-three per cent of the sputums, are unimportant in numbers.

OBSERVATIONS ON SPUTUM FROM TUBERCULOUS PATIENTS

A. Predominant Physical Properties:

The specimens of sputum from the tuberculous patients were frequently different from those obtained from the medical and surgical patients. Fifty-five per cent had a greenish color; five per cent were gray in color; four per cent had a yellowish cast; and four per cent were brown. The tuberculous sputums did not contain as much mucus, but more frequently had a definite greenish coagulum. The average tenacity was two plus. About seven per cent of these specimens showed the presence of blood, while about seventeen per cent contained pigment.

B. Predominant Organisms:

The percentages of micro-organisms in the tuberculous sputums were:

	PER CENT
Streptococci	72
Staphylococci	48
Mc. Catarrhalis	32
Pneumococci	31
Gram positive bacilli	14
Spores	7.2
Gram negative bacilli	4
Fusiform bacilli	3.3
Diphtheroid	3
Yeast	3
Influenza bacilli	2

The percentages of micro-organisms recovered from the tuberculous sputums by culturing on blood-agar plates were as follows:

	PER CENT
Staphylococci	70

Streptococci	57
Mc. Catarrhalis	30
Gram positive bacilli	12
Gram negative bacilli	11
Yeast	11
Pneumococci	6
Influenza bacilli	2

C. Presence of Tubercle Bacilli:

Acid-fast stains were made on all the sputums. These were very successfully made by the Ziel-Neilsen cold method of staining. The slides were allowed to stand in the stain from thirty minutes to one hour without heating. The tubercle bacilli seemed to be more intensely stained by the cold method than they were by steaming the slide for five minutes. No tubercle bacilli were expected to be found from the one-hundred cases on the medical and surgical service, however, two were found to be positive. From the three-hundred tuberculous sputums, forty-eight per cent were found to be positive for tubercle bacilli.

D.

Concentration tests were performed on the sputum in which tubercle bacilli were not found. The anti-formin concentration test was used and also a test devised by the authors. Ten per cent of the sputums which were negative for tubercle bacilli by a plain smear were proved to be positive by the anti-formin method, but twelve per cent were found to be positive by our method. Although a sufficient number of concentration tests by the writer's method have not as yet been run to definitely prove its value, the successful use of it in this work has urged us to experiment further in working out a more reliable test for concentrating tubercle bacilli. The technique is as follows: equal parts of sputum and essence of caroid are well mixed in a test tube and placed in a water bath at thirty-seven and five-tenths degrees until the sputum is digested. One cubic centimeter of one per cent sodium carbonate is then added, and the contents of the tube are centrifuged at high speed for fifteen minutes. The supernatant fluid is then poured off and the smear is made from the sediment.

E. Cellular observations:

In a group of two hundred and sixty-six tuberculous sputums an attempt was made to recognize and differentiate the more common types of cells present.

Smears were made on very clean slides. A small particle of sputum was made into a thin film by approximating one slide to another at right angles. After fixation, Wright's stain using a buffer was applied and allowed to remain for at least twenty minutes. This method gave a fairly consistently stained film. The average differential cell count on all of these specimens are as follows:

	PER CENT
Polymorphonuclears	68
Lymphocytes	22.4
Mononuclears	5.3
Myelocytes	4.7
Eosinophils .....	.5

CHART A

Smear Before Conc.	Time to Find Before Conc.	Smear After Conc.	Time to Find After Conc.
Positive	5 Min.	1 to field	1 Sec.
Positive	5 Min.	2 to field	1 Sec.
Positive	1 Min.	Over 25 to field	1 Sec.
Positive	2 Min.	5 to field	$\frac{1}{2}$ Sec.
Positive	1 Min.	Over 50 to field	$\frac{1}{4}$ Sec.
Negative	10 Min.	2 to field	1 Sec.
Negative	10 Min.	1 to field	1 Sec.
Negative	5 Min.	5 to field	$\frac{1}{2}$ Sec.
Negative	10 Min.	0	10 Min.
Negative	10 Min.	5 to field	$\frac{1}{2}$ Sec.

Chart Illustrating the Efficiency of Concentration Tests in Finding Tubercle Bacilli in Sputum

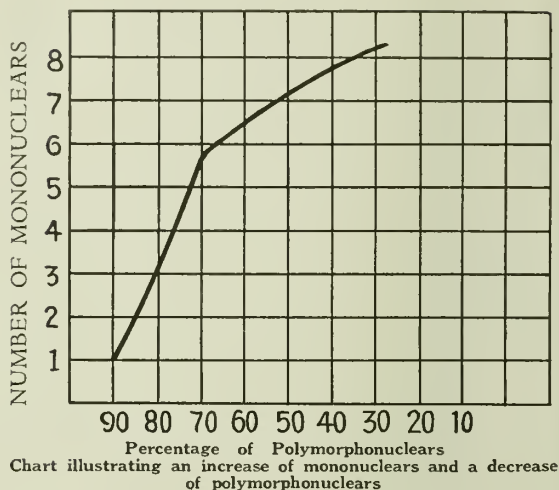
Out of this group it was found that thirty-five patients had above eighty per cent polymorphonuclears in a differential count of their sputums. Fifty patients averaged sixty-five per cent polymorphonuclears, while fifty-four had a polymorphonuclear count below fifty per cent.

A consideration of the polymorphonuclears as observed through the differential smear indicates, therefore, that in tuberculous patients the number of cells in the sputum closely parallels those in the differential blood smear. (The charts of this series suggest blood counts of an approximate number of cells, and it is generally conceded that the tuberculous patients tend to either have a normal or a slightly leukopenic differential count.) The figures also suggest that the majority of the patients tend to leukopenia.

Two hundred and nine of the total number of tuberculous patients had interesting lymphocytic counts. Five had seventy-five per cent lymphocytes; twelve, sixty-five per cent; nineteen patients, fifty-five per cent; fifty-three, thirty-five per cent; forty-three, twenty-five per cent; and seventy-seven patients had twenty per cent. It was found that sixty-three per cent of these patients had a definite lymphocytosis usually with the lymphocytes exceeding twenty-five per cent in the differential count.—a fact which coincides with other observations. The average lymphocytes totaled twenty-five per cent.

One interesting finding was a slight increase in mononuclears. Seventy patients revealed the presence of mononuclears above four per cent. A study was made of the relationship between the polymorphonuclears and the mononuclears. A chart indicates that whenever the polymorphonuclears increase in number the mononuclear percentage drops, while reversely it

CHART B



was observed that whenever the polymorphonuclears tend to leukopenia the mononuclears rise to the average figures. No explanation for this phenomena could be given. It is believed, however, that a mononuclear count of above four per cent suggests pulmonary disease.

Comparison also shows that there are fewer lymphocytes and fewer mononuclears in the sputums from the medical and surgical group than there are in the sputums from the tuberculous group.

The lymphocytes which were present in the differential smear, from the tuberculous sputums, were found to be very important. A chart made from these counts indicated that there must exist in these people a mononuclear-lymphocytic ratio. (See Chart C.) It seems that when the lymphocytes increase in number the mononuclears tend to rise proportionally. This fact is in accord with a mononuclear-lymphocytic ratio in the differential blood count of tuberculous patients as reported by Charles Doan.

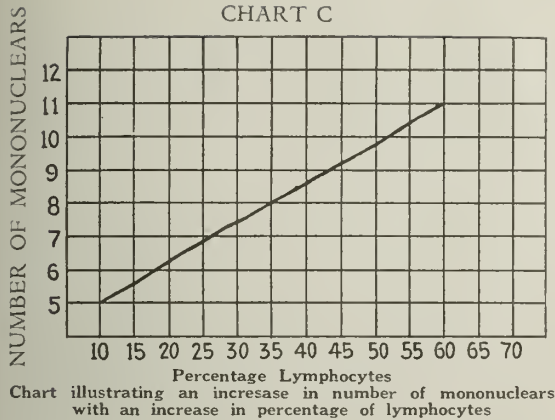
Epithelial cells were present in twenty-five per cent of the sputums from tuberculous patients. This suggests that in the tuberculous patient the bronchi are little disturbed, and also suggests a more definite alveolar pathology.

Other cells which were occasionally found to be present were: myelocytes, eosinophiles, heart-failure cells, carbon-laden cells, phagocytes, giant-cells, pigmented cells, and plasma cells. In one patient tumor cells were believed to have been observed.

PRESENCE AND TYPES OF FUNGI

It is now an accepted fact that yeast are common in sputum. Stovall and Bubolz report culturing four stains of yeast from sputum, many of which were pathogenic. In this study three hundred and forty-six sputums were smeared and cultured for the presence of fungi. It was observed that yeasts were the most common type of fungus present. At the suggestion of Dr. Norris, attention was concentrated upon these organisms. Yeast, presumably of the genus *Monilia*, were present in eighteen per cent of the specimens. It was interesting that among medical cases the yeasts were

CHART C



found in more than twenty-five per cent of the sputums. In surgical cases the number was considerably less. The explanation of this may be that in medical patients pulmonary changes of a chronic type such as a mild bronchitis and other conditions are more prevalent. Also, with certain diseases, dehydration and acidosis is common thus making a fertile field for the growth of yeasts.

In culturing these specimens Sabouraud's media was used. The sputum was smeared upon the sterile media and incubated for three days. The colonies appeared as grayish-white, moist, elevations with a rounded dome. Frequently, mycelial stalks spread from the periphery of the colony. As the colonies became older, they tended to definite elevations and the domes became crater-like and ragged. Later the colonies tended to accentuate their color.

The organisms represented two varieties, those which formed mycelia early, and those in which the organisms were reluctant to form mycelia. These latter yeasts seemed more truly of the *Saccharomycete* group.

The organisms varied in size, ranging from two to twenty microns, usually depending on the type of culture media used, and the age of the growth. Usually division was by budding. Often clusters of the organisms were attached at the junction of the mycelial stalk.

Six different strains of these organisms were found, the differentiation being made by sugar reactions. As a whole, the monilla group was more often represented. Several of the strains were pathogenic for rabbits. Fatal septicemia occurred when strains of the organism were administered intravenously. The animals died in seven days. The characteristic lesions were observed in the mesentery, liver, and kidneys. Numerous white elevated miliary bodies were present in these organs. Histologically there was a central necrosis with a periphery of polymorphonuclears, lymphocytes, plasma cells, giant cells and fibroblasts.

These organisms may cause chronic or acute disease. The organism produces a toxin which affects the nervous system, the blood cells, and other tissues. The yeasts are destroyed by sunlight and heating for thirty-five minutes at seventy degrees centigrade. Gen-

tian violet in a dilution of 1-30,000 also destroys them. They grow either with or without oxygen.

In fifty per cent of a series of the patients in whose sputums the yeasts were found, it was observed that agglutinins which affected these organisms were present in the blood.

CONCLUSIONS

This study disclosed several important findings: (a) the importance of the cell constituents, (b) the importance of the bacterial flora, (c) and the constant occurrence of pathogenic yeasts in sputum from tuberculous and non-tuberculous patients. Of these facts we particularly wish to emphasize the possibility of the polymorphonuclear-lymphocytic and mononuclear ratios as a diagnostic aid in tuberculosis. Of the bacterial studies none has been more interesting than the disclosure that hemolytic organisms are so numerous in tuberculous sputums. It is possible that this finding may throw a light upon the symbiosis of streptococci and tubercle bacilli, and may aid in determining a more satisfactory therapeutic attack on tuberculosis.

The yeasts are emphasized as secondary disease agents which may produce disease in the pulmonary tissues. It is also interesting to note that blood is so common in non-tuberculous sputums with a relative absence of it in the tuberculous sputums available for this study.

The concentration test mentioned will have a further trial and a later report made.

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Pneumococci, staphylococci and micrococcus catarrhalis are the common bacteria in sputum. Streptococci also are present in a large percentage; many of the chain forms would probably be classified as pneumococci if differentiated by cultural methods.

The Western Hospital Review, 130 South Broadway, Los Angeles, California, says that: "Doctors and hospitals are face to face with many economic problems. The public is demanding unreasonable changes in the present system of providing medical and hospital treatment. Certain changes are necessary but unguided medical procedure will be destructive to the cause of medicine."

VITAMIN THERAPY*

D. H. GARRISON, M.D.

Tate

For many years it has been known that life is dependent on something more than mere proteins, fats, carbohydrates, and mineral salts. This was first proven by the experiments of Hopkins, of Cambridge University. It soon became a well known fact that certain foods, such as fats, fruits, and vegetables, possessed a life-giving quality, that certain other foods had not the life-giving quality, and that certain conditions of ill health improved more rapidly when the patient was put on a diet containing the supposedly life-giving agent.

No name was given by the first experimenters to designate this newly discovered principle. Later, Osborn and Mendel, McCollum and Davis, showed by experiments upon healthy rats that there were two very important substances in the food, one fat-soluble, and the other water-soluble. To these McCollum gave the names of fat-soluble A and water-soluble B. About this time Funk gave the name "Vitamin" to all those previously unknown substances, the lack of which might be responsible for any deficiency disease, and also stated that it had been proven that supplying the body with adequate quantities of proteins, fats, and carbohydrates was not sufficient to maintain life and growth.

Many definitions have been given to the term, vitamin, but it is not within the scope of this paper to give them all. Let it be sufficient to say that vitamins are the substance in food which sustains life and promotes growth. There are today six known vitamins, A, B, C, D, E, and G.

Vitamin A

Vitamin A can well be called the master vitamin, since it is the most important of all the vitamins, for two definitely established reasons: First, the lack of vitamin A in the diet of an animal will cause death more quickly than the total lack of any other two vitamins. Second, if an increased intake of any other vitamins is prescribed to accomplish

certain therapeutic results, as, for instance, prescribing vitamin B in pellagra or vitamin D in rickets, much better results are always obtained by prescribing vitamin A with the other vitamins.

I have heard some very learned men say that "there is not very much to this vitamin theory", that "if you will supply the system with adequate and balanced diet, the food will contain more vitamins than the system can possibly need". This is perfectly possible, but not by any means always true. It would be just as reasonable to say that to supply the human system with an adequate and balanced diet will prevent illness, but, as we all know, such is not the case. On the evidence of such men as Robert McCarrison, of Great Britain, Tilden and Miller, of the Rockefeller Institute, W. Cramer, McCollum, Creekmore, and others, who have reported such wonderful changes taking place in the system when a sufficient quantity of the necessary vitamins is supplied, and the development of certain diseases when the body is deprived of the required vitamins, we come to the conclusion that to have the right vitamins in sufficient quantity is not only absolutely necessary, but that, considering the group of vitamins as a whole, a balanced vitamin intake is in many instances the greatest therapeutic agent at our command.

It has been demonstrated by experiments on animals that there is a definite relationship between vitamins on the one hand and appetite, motility, and tone of the gastrointestinal musculature on the other. It has been said by one of our earliest writers on this subject that an adequate intake of vitamins A and B is essential to proper digestion, assimilation, and absorption. Vitamin A promotes constructive metabolism, increases the function of the blood stream, promotes digestion, absorption, and assimilation of foods and the mineral salts, and prevents infection, especially of the eyes, sinuses and lungs.

Robert McCarrison says:

"The pathological changes in the intestinal tract which result from vitamin A deficiency are as follows:

1. Congestive necrotic and inflammatory changes in the mucous membrane, sometimes involving the entire tract, sometimes limited to certain areas.
2. Degenerative changes in the neuromuscular

*Read before the Medical Association of Georgia, Augusta, Ga., May 18, 1932.

mechanism of the stomach, ballooning of areas of the small and large bowel, and probably to intussusception.

3. Degenerative changes in the secretory elements of the tracts, i. e., the gastric glands, the pyloric glands, the glands of Lieberkuhn, and the mucous glands of the colon.

Dr. W. Cramer found, after careful experiments on rats fed for five weeks on a diet deficient in vitamin A, that marked atrophy of the villi resulted. In rats fed on a diet deficient in vitamin B, the villi differ from normal, but show no atrophy or necrosis. In the absence of vitamin B, the normal assimilation of food is impaired, owing to the atrophy of the lymphoid tissue. In the absence of vitamin A, there is the obvious impediment due to the atrophic intestinal mucosa.

Since the mucous membrane of the intestinal tract is so susceptible to vitamin A, and since we have found definite pathological changes in the mucous membrane of animals fed on a vitamin-A-deficient diet, we must conclude that many people living today on a vitamin-A-deficient diet are suffering from numerous conditions of vague ill health, such as stunted growth, intestinal derangements and toxemia, for which there is no other adequate explanation.

Tilden and Miller, of the Rockefeller Institute, report that almost all monkeys fed for a time on a diet free of vitamin A show evidence of gastro-intestinal damage. Post-mortem examination showed that pathological changes in the intestinal mucosa were the most constant findings, and that actual ulceration occurred in a large percentage of cases.

Rats on a vitamin-A-free diet die in eight to twelve days. Rats on a diet rich in vitamins B and D but free from vitamin A become blind and die. In view of this fact, it appears not unreasonable to believe that a great many children are today wearing glasses because they have had insufficient vitamin A in early life.

An intestinal tract which has been deficient of vitamin A for a long time loses its tone. The mucous membrane becomes thin, and the villi in the small intestines become shorter, weaker in function, and actually break down and ulcerate, due to necrosis of the ends of the villi. The lowered resistance

of the intestinal tract permits atonic constipation, an increase of the growth of bacteria in the intestinal tract, blood-stream infection, chronic infections over the body, arthritis, secondary anemia, and certain types of dermatitis.

When the intake of vitamin A becomes very deficient, we may look for some of the following conditions: Loss of appetite, constipation, lack of growth, physical weakness, susceptibility to infections, diseases of the air passages, lungs, and skin, secondary anemia, dullness of special senses, failure of ovulation.

Vitamin A is found in sweet milk, butter, cheese, egg yolk, green, leafy vegetables, liver, oranges, beef fats, mutton fat, sweet potatoes, cod liver oil.

Vitamin B

Vitamin B consists of two factors, namely, the antineuritic factor and the pellagra-preventive factor. These are sometimes called B-1 and B-2, respectively. Vitamin B-2, the pellagra preventive factor, has been re-named vitamin G.

Vitamin B is not so immediately essential to life as is vitamin A. However, experiments with the smaller animals and the prescribing of vitamin B in certain human ailments prove it to be very important. Dr. George Cawgill, of Yale University, reports that in dogs deprived of vitamin B, there was loss of all appetite and loss of gastro-intestinal tone and contractions. In severe cases of vitamin B deficiency in which anorexia is associated with nervous and muscular symptoms, there is a gastric atony, but vitamin B therapy applied properly to such cases, the diet being adequate in other respects, causes a rapid improvement in the musculature of the stomach. It is quite possible that a great many convalescents owe their anorexia to prolonged subsistence on a diet low in the antineuritic vitamin B. McCollum says that there are hundreds of thousands of borderline cases of nervous maladies due to a deficiency of vitamin B. This is why yeast is used so regularly in our institutions for the insane.

The expectant mother, to safeguard the child, to protect her own nutrition, and to promote successful lactation, should have a diet as rich in vitamin B as possible.

Every one knows the value of yeast in the treatment of pellagra. This is due to the presence of the pellagra-preventive factor of vitamin B, that is, vitamin B-2 or vitamin G. Without vitamin B-2 or vitamin G there will be no cure for pellagra. To effect a successful cure as soon as possible, vitamin A, due to its tonic effect on the gastro-intestinal tract, still holds its place in the dietary of these patients.

There are some skin eruptions which are only manifestations of a deficiency of vitamin B, and can be cured by sufficient intake of water and vitamin B.

It might be of interest to doctors who possess dogs to know that "black tongue" in dogs is nothing more than a deficiency disease similar to pellagra in man, and can be cured by giving a sufficient quantity of vitamin A and B.

A sufficient quantity of vitamin B promotes digestion, increases metabolism, promotes growth, increases quantity and quality of milk in the mother, protects the central nervous system, and protects the skin. A deficiency of vitamin B causes the loss of appetite and digestion, constipation, affects the whole glandular system to the extent of a general debilitated condition throughout the entire body, including the central nervous system, an atrophy of the lymphoid tissue, beri-beri, and pellagra.

Sources of vitamin B are whole cereals, milk, egg yolk, fresh fruit and vegetables, sweetbreads, fish, malts, and yeast.

Vitamin C

Not a great deal has been written on vitamin C. However, we have learned enough of vitamin C to know that a deficiency of this vitamin leads to retarded growth, poor dental development, scurvy, capricious appetite, loss of weight, rapid pulse, rapid respiration, tendency to hemorrhage, low hemoglobin, hypo-adrenia, decaying of teeth, red gums, brittle bones.

Vitamin C is found in tomatoes, green, leafy vegetables, raw citrus fruits, milk and bananas.

Vitamin D, or the Anti-Rachitic Vitamin

Rats on a vitamin-D-free diet for three weeks developed rickets, and when placed on

vitamin D again, they returned to their normal condition. Other rats, continued on a vitamin-D-free diet soon died.

Out of 216 infants from one to fourteen months of age admitted to the hospital in December and January, 18 per cent were found to be rachitic. In a group of these infants no vitamin D medication was given during the winter months and in April the incidence of rickets had increased to 51 per cent. This shows the necessity for the prophylactic use of cod liver oil, especially rich in Vitamin D.

By increasing calcium metabolism, vitamin D promotes bone growth and bone repair. By the use of increased intake of vitamin D, slow-uniting fractures and young, un-united fractures have been made to form strong union. It is also an aid in the arrest of tuberculosis.

Vitamin D is the master of calcium assimilation. It increases mineral metabolism, and is a specific agent against rickets.

Vitamin D is found in butter, cream, egg yolk, fish oil, cod liver oil, and is produced artificially in certain oils by the use of the ultra-violet ray.

A deficiency of vitamin D leads to muscular weakness, instability of the nervous system, rickets, and deformity of bones.

Vitamin E

Our knowledge of vitamin E is somewhat limited. The term designates the fat-soluble substance, the function of which has to do with the nutritional processes of reproduction. Lack of vitamin E will produce sterility in the male, and in the female foetal death during the period of gestation. Vitamin E is found in meat, fish, egg yolk, whole cereals, green vegetables, wheat germ and malt.

After studying vitamins from a physiological and therapeutic standpoint, we come to the conclusion that the human system cannot survive without the proper intake of vitamins, and that it is as important to have a balanced intake of vitamins as it is to have a balanced intake of food supply. One of the main objects of this paper is to bring clear to our minds the fact that no one vitamin, prescribed alone, can give us the proper results, but that vitamins must be prescribed

in a group, or at least the master vitamin A should be prescribed with any other vitamin in order to obtain the proper results. By so doing, the system will not suffer an unbalance of vitamin intake, but metabolism is increased, and with it the absorption of all foods and of minerals into the system.

VITAMIN THERAPY CASE REPORTS

VITAMIN A AND B DEFICIENCY

Case I.—Mrs. M., age 26, lack of energy, easy to tire, could not do house work without resting; constipated, loss of appetite to a certain degree, physical examination negative; Vitamins A, B and D only medication given. Patient returned to normal in less than three weeks.

VITAMIN D DEFICIENCY

Case II.—Male child, age two years, well nourished, looked healthy, appetite very good; physical examination revealed: child unable to walk or to stand without being held; feet soft and flabby, would turn over very easily, child had no control of his feet at all. Parents had been advised to carry the child to the crippled children's home. I did not make an x-ray of the child's feet, but made a diagnosis of rickets. Child was given cod liver oil, rich in Vitamin D, together with calcium carbonate. In five months child could stand alone, in six months was walking unassisted.

VITAMIN A AND B DEFICIENCY UNDERLYING

CAUSE FOR ACUTE TOXEMIA

Case III.—White man, age 34, worked in a drug store, had to quit work on account of a general toxemia. Examination revealed skin over whole body and limbs more or less covered with brownish scaly eczematous rash. Tongue heavily coated, tonsillitis, temperature 102. Urine very acid. Treatment: Elimination of alkaline drinks and general measures for acute toxemia. Patient returned to work in five days. Treatment was continued with Vitamins A and B in concentrated form with increased intake of water for several weeks. Eczematous rash disappeared in six weeks.

DISCUSSION ON PAPER OF DR. GARRISON

Dr. William R. Dancy, Savannah: A very complex and somewhat confused subject has been most concisely and interestingly presented to us by Dr. Garrison. He deserves much credit for presenting to us in such a splendid style his findings as a result of his studies. Vitamin A, as he said, is considered the master vitamin because that is the most important of all vitamins. The experiments of McCullough and others with rats on this line are intensely instructive. McCullough fed a number of rats on a well balanced diet containing all the vitamins except vitamin A. These rats developed the symptoms of a lack of vitamin A and all died within three to five months. Rats so handled if given vitamin A along with the other diet will recover provided they have not progressed too far. These animals showed infections of the mucous membranes, of the gastrointestinal tract as well

as, in the later stages, minute abscesses throughout the body. Vitamin A is considered the anti-infective vitamin and has been used as treatment of colds and pneumonia. The results have shown that as a therapeutic remedy vitamin A is of little value in the treatment of colds. As a therapeutic measure we find that those cases that have had a sufficient supply of vitamin A run a shorter course of both colds and pneumonia, and a milder type of both these diseases is present. The best work that has been done has been in septicemia, where Mallory and Green, in Canada, have done some excellent work. In a series of five cases they cured all five patients with septicemia. In a series of eight cases not treated with vitamin A two patients died. In another series of six cases not treated with vitamin A all resulted fatally.

Relative to vitamin B, Dr. Garrison explained the general uses in pellagra and polyneuritis, but I wish to refer more particularly to the use of vitamin B in gastrointestinal conditions. We know that if the secretion of the suprarenal gland is increased the gastrointestinal tract resistance is lowered. We know it is essential to have vitamin B in the diet to maintain the level of the secretion of the suprarenal gland. If this is not done there will be a lowering of the resistance of the gastrointestinal tract to infection. Illustrating this point, Dr. Garrison, a surgeon in the British army, was located for five years in the Himalaya Mountains, and while there he operated on 6580 cases. He stated that there the natives fed on the natural diet of the land, which was generous in the vitamins A and B, and in this entire group of cases he did not find one of involvement of the gastrointestinal tract. There was no mucous colitis or appendicitis. This gives us one more remedy for the treatment of mucous colitis.

Dr. Hal M. Davison, Atlanta: Dr. Garrison called our attention to these vague conditions of the human body in which no particular disease can be found. It is the hardest lesson that physicians have to learn, to take care of patients without specific disease. We have no serum or vaccine which is efficacious, but when we give these patients a proper diet assisted by a certain amount of vitamins they often are quick to pick up and overcome the disease themselves. Some years ago a few manufacturers began trying to concentrate vitamins. They have been rather successful in vitamin B and vitamin D, but the literature warns us not to depend upon vitamins A and C as they are not yet stable.

Dr. Garrison warned us about the effect of the vitamins on the bone development, which is supposed to be governed by the pituitary gland and continued by the parathyroids, in some instances. The vitamins have been successfully used in the treatment of other conditions, such as ulcers of the leg.

Dr. Garrison rather apologized for his paper but I think he should be proud of it rather than apologetic, for it is these adjunctive things that help us in medicine and make us successful physicians, rather than just a doctor who is scientific.

MINUTES OF THE COUNCIL

FIRST MEETING

Tuesday, May 17, 1932

The first meeting of the Council of the Eighty-Third Annual Session of the Medical Association of Georgia was called to order at the DeSoto Hotel, Savannah, at 6:00 p.m., by the Chairman, Dr. C. L. Ayers, Toccoa. Those present were:

William H. Myers, J. A. Redfearn, J. C. Patterson, W. A. Selman, K. S. Hunt, H. M. Fullilove, C. L. Ayers, S. J. Lewis, President Fort, President-Elect Head, Vice-President Pruitt, and Secretary Bunce.

REPORTS OF COUNCILORS

First District—DR. WILLIAM H. MYERS, Savannah.

As Councilor for the First District, I submit the following report:

The District as a whole has suffered from the depression and in some rural sections physicians find it difficult to discharge their obligations.

Chatham County Society has suffered a decline in payment of dues, but in most instances delinquencies are only temporary.

Last year, I reported one quack and an irregular practitioner in this District. I am pleased to report that the quack has departed for greener fields, but the unlicensed and irregular practitioner is, according to last reports, located and undisturbed in Springfield.

Paid members to May 1, 1932, were 87 compared with a total of 136 for the entire year 1931.

WILLIAM H. MYERS, Councilor.

Second District—DR. J. A. REDFEARN, Albany.

During the past year two interesting and well attended district meetings were held. Most of the counties are slow in reporting dues.

The number of paid members to May 1, 1932, was 81 compared with a total of 124 for the entire year 1931.

J. A. REDFEARN, Councilor.

Third District—DR. J. C. PATTERSON, Cuthbert.

The Third District is holding up well during these days of Hoover prosperity, and I believe compares favorably with the rest of the country.

We have had one district meeting, which was well attended, another is due in a few days.

Several of our individual counties have had excellent programs throughout the year, Sumter County especially, drawing men from many counties by having outstanding visitors.

Randolph and Terrell have had two joint meetings with about fifty in attendance at each meeting, the scientific program following a fish fry.

The usual talks on cancer, Koch, and before the Parent-Teacher Association, as requested by our President, were all attended throughout the district.

On the whole, the Esprit de Corp in the Third District is about up to its usual standard.

The number of paid members to May 1, 1932, was 82 compared with a total of 107 for the entire year 1931.

J. C. PATTERSON, Councilor.

Fourth District—DR. C. W. ROBERTS, Carrollton.

In the absence of Doctor Roberts, Secretary Bunce presented the tabulated report:

The number of paid members to May 1, 1932 was 48 compared with a total of 75 for the entire year 1931.

Fifth District—DR. W. A. SELMAN, Atlanta.

We have had two district meetings, one at Emory University and one at the Academy of Medicine in Fulton County. It is customary for many members of the Fifth District to pay their dues later. This year compares well with former years, and some members have paid since May 1st. On the whole the Fifth

District is in good condition.

The number of paid members to May 1, 1932, was 321 compared with a total of 488 for the entire year 1931.

W. A. SELMAN, Councilor.

Sixth District—DR. K. S. HUNT, Griffin.

There is not much to report in addition to the tabulation of members, but a few of the members have been complaining about the dues. I think, however, that the majority of the District feel that they would pay the present dues just as quickly as the previous amount.

The number of paid members to May 1, 1932, was 103 compared with a total of 152 for the entire year 1931.

K. S. HUNT, Councilor.

Seventh District—DR. M. M. MCCORD, Rome.

Secretary Bunce read the following telegram, which had just been received from Doctor McCord, and presented the report which he had submitted. Wire follows:

"Last minute complications prevent my going to Savannah today. Dr. J. T. McCall arrives there tonight and will act for me as Councilor and as member of Publication Committee. Please see McCall when he arrives and get him busy."

Dr. M. M. McCord."

I submit herewith my annual report as Councilor of the Seventh District.

Since our last annual meeting we have had two District meetings; one in Cedartown, last September, and one in Rome last April. There was an attendance of approximately sixty members at each meeting. The programs were excellent and many of the members took part in the discussions.

Our membership has held up remarkably well, considering economic conditions. We are still a few members shy of what our membership was for 1931, but I fully believe that before the summer is over, we shall have equally as many.

Every County Society in the Seventh District which reported in 1931 has reported for 1932. When we take into consideration that the Medical Association of Georgia has the lowest annual dues of any state in the entire union, and much lower than even the average of our neighboring states, we wonder why Georgia doctors feel that our dues are exorbitant when the amount is only \$7.00 per annum. This includes medical defense and the best medical journal in the South, while many of the State Associations with higher dues do not include the protection afforded by medical defense. Let some of the non-affiliated members be hauled into court for some damage suit and the tables might turn and serve to convince them that the dues as assessed by the Medical Association of Georgia are not too high when they have no defense except that for which they pay in much larger amounts.

At the last meeting of the Council in Atlanta several months ago, the question of the feasibility of inaugurating a weekly radio program for the purpose of dissemination of medical education over its state similar to a practice which has been put into use by the Medical Association of Texas was discussed. Inasmuch as Georgia ranks about forty-fifth in medical education it was felt that perhaps this might be a good move as a means of information to the public on better health propaganda, since some are using the radio directly antagonistic to the ideals of the medical profession. Several spoke favorably and we were assured by the Director of the State Department of Public Health of the use of an allotted ten minutes weekly which the Department has over one of the broadcasting stations, provided the party or parties using the radio refrained from entering into any controversies.

An article on the subject appeared in the April issue of our Journal, explaining the practicability of such a plan with requests for members over the State to write a card to the essayist and state their ideas about the proposition as a nucleus of further discussion at the Savannah meeting. Many members wrote cards and expressed themselves as enthusiastic for such a plan. In some instances, county societies adopted the proposed project unanimously and recommended that the matter be brought before the Delegates at the Savannah meeting. I hereby recommend that this matter be discussed by the House of Delegates, and if same is adopted that a radio committee be appointed to work out weekly programs or inaugurate a question box and give answers the following week.

In the final wind-up, I feel that the Seventh District will do equally as well in membership this year as in 1931.

The number of paid members to May 1, 1932 was 106 compared with a total of 129 for the entire year 1931.

M. M. MCCORD, *Councilor*.

Eighth District—DR. H. M. FULLILOVE, Athens.

We have had two meetings, one a clinical meeting and the other a formal meeting with a program. We had good attendance at each meeting.

The number of paid members to May 1, 1932, was 39 compared with a total of 81 for the entire year 1931.

H. M. FULLILOVE, *Councilor*.

Ninth District—DR. C. L. AYERS, Toccoa.

As Councilor of the Ninth District, I herewith submit the following report:

Practically all of the counties in the district either have county societies, or affiliate with adjoining counties.

The total membership of the District, at the end of 1931 was 87; on May 1st of this year it was 58.

Some of the counties invariably wait until fall to send in dues, and by the end of the year I think the membership will compare favorably with last year.

Since our last State Meeting there have been two District Meetings. The September meeting was held at Tate, where the members were delightfully entertained by the Cherokee and Pickens County Medical Societies.

The March meeting was held in Gainesville.

Both meetings were well attended, and we were pleased to have our State President and President-Elect, with other prominent physicians.

The programs were excellent.

C. L. AYERS, *Councilor*.

Tenth District—S. J. LEWIS, Augusta.

We have had two very successful meetings in the Tenth District during the year. Our Society feels that the Secretary should have a vote of appreciation for the manner in which he has handled many difficult situations during his years of service.

The number of paid members to May 1, 1932, was 81 compared with a total of 135 for the entire year 1931.

S. J. LEWIS, *Councilor*.

Eleventh District—DR. A. S. M. COLEMAN, Douglas.

In the absence of Doctor Coleman, Secretary Bunce presented the tabulated report which showed that the number of paid members to May 1, 1932, was 70 compared with a total of 101 for the entire year 1931.

A. S. M. COLEMAN, *Councilor*.

Twelfth District—J. COX WALL, Eastman.

Secretary Bunce read the following letter from Doctor Wall:

"Am inclosing my report for the district, very sorry that I cannot be there to read it, but was out of town all last week attending the A. M. A. and cannot get to Savannah until the last two days."

"J. C. Wall."

Report follows:

I regret that my paid membership is not equal to last year, but am appreciative of this showing.

I have attended one call meeting of the Council this year.

Our District Society held two of the best meetings we have ever had, large and enthusiastic attendance at McRae and Hawkinsville. At both meetings the redistricting of the state was discussed and the members were against it.

The number of paid members to May 1, 1932, was 47 compared with a total of 59 for the entire year 1931.

J. COX WALL, *Councilor*.

Secretary Bunce presented a tabulated report showing the membership by districts with the number of paid members to May 1, 1932, as 1,101 compared with a total of 1,674 for the entire year 1931.

Doctor Bunce stated that probably thirty-five to fifty members had paid their dues since May 1st, the date of the tabulation given, so the paid up membership was at present somewhat in advance of those figures.

Appointment of Auditing Committee

Chairman Ayers appointed an Auditing Committee consisting of Dr. J. A. Redfearn, Dr. H. M. Fullilove, and Dr. J. C. Patterson and requested them to audit the books of the Secretary-Treasurer and report at the next meeting of the Council.

Appropriations

Dr. S. J. Lewis moved that the Council recommend the appropriation of the sum of \$3,000.00 to the Committee on Medical Defense.

The motion was seconded by Dr. W. H. Myers and unanimously carried.

NEW BUSINESS

Affiliate and Associate Membership

SECRETARY BUNCE: Every three years the membership in the House of Delegates of the American Medical Association is reapportioned. We now have three members in the House of Delegates but I am afraid if some effort is not made to keep the membership in our Association as high as possible we may lose one of the delegates to the A. M. A. One method by which this may be done, which is being neglected by us is to admit internes to interne or affiliate membership without dues. This permits those men to attend the meetings but not to vote, hold office or receive the Journal. They are investigated the same as other candidates before admission and this increases the membership list. In addition to this there are a number of full-time medical officers connected with City, State and National Governments who do not feel sufficiently interested to affiliate themselves with organized medicine, but they can be admitted to associate membership, if so desired, and provided they prove eligible for such membership.

I would suggest that the members of the Council think this matter over and decide if it is desirable to adopt this plan. It would require a change in the By-Laws.

Doctor Myers moved that notice be served of intention to change the By-Laws to permit election of affiliate and associate members.

The motion was seconded by Doctor Patterson and unanimously carried.

The Chairman appointed Doctor Myers to bring the matter before the House of Delegates at the proper time.

Illegal Practitioners

Chairman Ayers introduced the question of illegal practitioners and cults, as brought out at the meeting of the Committee on Medical Defense, and read the motion of Doctor Mulherin asking for an expression from the Council as to their willingness to co-operate with the Committee in checking up illegal practitioners.

Doctor Redfearn expressed the opinion that the County Secretaries should co-operate in this way in order to assist the Councilors.

Doctor Fullilove moved that it be the consensus that the Council would be glad to assist in any way possible.

The motion was seconded and unanimously carried.

Radio Addresses

Secretary Bunce introduced the question of radio talks as recommended by Doctor McCord.

Chairman Ayers stated that Doctor Abercrombie had informed him that he would be glad to have the co-operation of the Association and give them a certain number of programs.

Doctor Fort stated that the management of WGST would be glad to allow the Association time for an educational program each week if they would supply a speaker.

Adjournment

Upon motion of Doctor Redfearn, regularly seconded and carried, the Council adjourned at 6:30 p.m. to reconvene at 9:30 a.m., Wednesday.

SECOND MEETING

Wednesday, May 18, 1932

The Council met and was called to order at 9:35 a.m. by the Chairman, Dr. C. L. Ayers, Toccoa.

Those present were:

William H. Myers, J. A. Redfearn, J. C. Patterson, K. S. Hunt, H. M. Fullilove, C. L. Ayers, S. J. Lewis, President Fort, President-Elect Head, Vice-President Pruitt, Secretary Bunce.

Expenses of President

THE CHAIRMAN: According to the interpretation of the Constitution and By-Laws, the House of Delegates was in error in recommending to the Council that we appropriate the sum of \$300.00 for the expenses of the President, instead of \$150.00.

DR. J. A. REDFEARN: The amount formerly allowed the President for expenses was \$150.00 and then for a couple of years the Presidents were allowed to turn in their expense account which, on one occasion, ran up to \$500.00 or \$600.00. It was then decided, after some discussion, that \$150.00 should be the limit, for while this would not cover the expenses of the President, the office is an honor that can come only once to any man. I doubt the wisdom of making any change in the appropriation this year.

Hardman Cup

The Chairman introduced the question of whose name should be placed on the cup donated by Doctor Hardman, to be presented annually to that physician who had accomplished some outstanding work in medicine or surgery.

THE SECRETARY: This is one of the most difficult things to place before a body of men for decision. It may be well to postpone action for a year in order to have an opportunity to ascertain what has been done during the preceding year. Some meritorious work might be published too near the time of the meeting to be considered at this time. I think this is the only possible way to decide this question logically.

Doctor Lewis moved that Doctor Bunce's suggestion be adopted.

The motion was seconded by Doctor Myers and, after some discussion by Doctors Hunt and Redfearn, was put to a vote and carried.

Doctor Redfearn moved that the Chairman appoint a committee of three from the Council, of which the

Secretary will be a member, to study the matter and recommend to the Council at the next meeting.

The motion was seconded by Doctor Myers and unanimously carried.

On motion of Doctor Hunt, regularly seconded and carried, the Council adjourned at 10:05 a.m. to reconvene at the call of the Chairman.

THIRD MEETING

Thursday, May 19, 1932

The Council met and was called to order at 8:00 a.m. by the Chairman, Dr. C. L. Ayers, Toccoa.

Those present were:

J. A. Redfearn, W. A. Selman, K. S. Hunt, C. L. Ayers, S. J. Lewis, J. W. Palmer, President Fort, President-Elect Head, and Secretary Bunce.

Report of Auditing Committee

Dr. J. A. Redfearn, Chairman, presented the following verbal report:

We, the Auditing Committee of the Council, have examined the books of the Secretary-Treasurer and find them correct. We checked and double checked the books with the Secretary.

J. A. REDFEARN, *Chairman*.

J. C. PATTERSON,

H. M. FULLILOVE.

Committee on Exhibits

Secretary Bunce suggested that it might be well to appoint a formal committee to visit the exhibits in order to stimulate interest in the scientific exhibit, particularly in connection with papers that were presented on the program. He expressed the opinion that if the scientific exhibit was increased from year to year it would add to the value of the scientific meeting, and suggested that if the Council appointed a committee on the first day of the meeting to visit the scientific and commercial exhibits and report back to the Association it would encourage the exhibitors to take more interest in their displays.

Doctor Head moved that a Committee on Exhibits be appointed.

The motion was seconded by Doctor Hunt, discussed by Doctor Redfearn, and unanimously carried.

SECRETARY BUNCE: There are two phases to be considered. One, for the Committee on Exhibits to co-operate with the Committee on Scientific Work, and two, to have the Committee visit the exhibits and report back as to the first, second and third best exhibit.

I move that the Chairman appoint a committee from the Association at once whose duty it shall be to visit the exhibits at this meeting, let the commercial exhibitors know that we are glad they are here, and encourage the scientific exhibitors in their work, and report on Friday morning.

The motion was seconded by Doctor Head and unanimously carried.

The Chairman appointed as a Committee on Exhibits, Drs. Frank K. Boland, Kenneth S. Hunt, J. A. Redfearn, and W. A. Selman.

Expenses of Invited Guests

Secretary Bunce stated that he had consulted with Doctor Alvarez about his expense account and had given him his check before he left, but that he did not yet have the expense account of Doctor Mithoefer.

On motion of Doctor Head the Council adjourned at 8:20 a.m. to reconvene at the call of the Chairman.

FOURTH MEETING

Thursday, May 19, 1932

The Council met and was called to order at 5:40 p.m. by the Chairman, Dr. C. L. Ayers, Toccoa.

Those present were:

William H. Myers, J. A. Redfearn, W. A. Selman, K. S. Hunt, H. M. Fullilove, C. L. Ayers, E. B. Claxton, J. O. Elrod, President Fort, Vice-President Pruitt, President-Elect Head, and Secretary Bunce.

Registration Fee

The suggestion for a registration fee, to be collected at each annual session from attendants when registering, was discussed. The collection of such fee was proposed for the benefit of the local society where the annual session was being held. Motion carried to disapprove of the collection of a registration fee.

Adviser to Secretary-Treasurer

DR. H. M. FULLILOVE: There were two items in the expense account which was audited that Doctor Bunce did not feel sure what to do about, but paid.

I move that the Councilor from the Fifth District advise with Doctor Bunce when there is a question in his mind as to whether or not certain bills shall be paid through his office.

The motion was seconded by Doctor Bunce and unanimously carried.

On motion of Doctor Fullilove, regularly seconded and carried, the Council adjourned at 6:00 p.m. to reconvene at the call of the Chairman.

FIFTH MEETING
Friday, May 20, 1932

The Council met and was called to order at 2:00 p.m. by the Chairman, Dr. C. L. Ayers, Toccoa.

Those present were:

William H. Myers, J. C. Patterson, W. A. Selman, K. S. Hunt, H. M. Fullilove, C. L. Ayers, J. E. Penland, E. B. Claxton, President Head, President-Elect Richardson, Vice-President Morrison and Secretary Bunce.

PRESIDENT HEAD: The purpose of this meeting of the Council is to elect a Chairman.

Doctor Hunt nominated Doctor Ayers for Chairman of the Council.

The nomination was seconded and Doctor Ayers was unanimously elected.

Doctor Myers moved that the Chair appoint the Clerk of the Council.

The motion was seconded by Doctor Hunt and unanimously carried.

The Chairman reappointed Dr. M. M. McCord as Clerk of the Council.

Doctor Head moved to adjourn.

The motion was seconded and the Council was declared adjourned at 2:10 p.m., *sine die*.

ALLEN H. BUNCE, *Secretary*.

PUBLICATION COMMITTEE OF COUNCIL
Minutes of Meeting, May 18, 1932

The Publication Committee met and was called to order at 2:20 p.m. on Wednesday, May 18, 1932, by the Chairman, Dr. W. A. Selman.

Present were: Drs. J. T. McCall (representing M. M. McCord), J. C. Patterson, W. A. Selman, and Allen H. Bunce.

The Chairman stated that the purpose of the meeting was to consider complaints from some oculists who objected to the advertising by opticians in the Journal. He asked Dr. L. C. Rouglin to explain the matter.

DOCTOR ROUGLIN: The objection that is being made to the optometrists is due to the fact that they are advertising in a manner that is misleading to the public, and to the physician, and that is unfair competition to the oculists. It is particularly misleading to the public when they see an advertisement in a medical journal, apparently with the approval of the State Association.

DOCTOR BUNCE: With reference to the Journal, I may say that the advertisements are sent in by the Co-operative Medical Advertising Bureau of Chicago, with which the State Medical Associations are affiliated. Then in each city we have someone who solicits advertisements, and for this particular type of advertisement we have no way to check on them. The Hospital Committee checks on the hospital department. The Co-operative Medical Advertising Bureau checks

on all its ads and accepts only those that are acceptable to the advertising policy of the A. M. A.

I move that the Eye, Ear, Nose and Throat Club appoint a committee to go over the advertisements which the Journal already has and point out those that should be eliminated, a committee to serve in this capacity permanently so that if any other advertisements are turned in it can pass on them.

The solicitors sign a contract to run for a definite length of time and in order to avoid trouble I would like to have some action taken.

DR. W. O. MARTIN: We have no strictly dispensing opticians. All of them compete with the oculist, and the physicians out in the smaller towns in many instances do not know the difference between a doctor of optometry and an oculist. We have discussed the question of appointing a committee and feel that it would be dangerous to try to distinguish between them for fear of laying ourselves liable in this way. All the advertisements are more or less objectionable. All of them in Atlanta are doing refracting or other work in competition with the oculists. The consensus of the Club is that it is best not to accept such advertisements for the Journal of the Medical Association of Georgia.

DOCTOR BUNCE: One of the objects in running advertisements in the Journal is to have the out-of-town doctors know what we would advise.

DOCTOR MARTIN: The out-of-town doctors do not distinguish between an optometrist, an optician and a medical oculist. It is very confusing for the average layman or physician when these men are listed as doctors.

DR. J. C. PATTERSON: It does not seem to me possible that the doctors do not know the difference between these two.

DOCTOR BUNCE: If we refuse to accept these advertisements it will take away part of the income from the Journal. Do you think the wholesale optical houses would advertise with the Journal if these ads were cut out? The advertisements from the opticians have been in existence since 1911 and take care of all the mailing expense for the Journal. I am sure they could have no legal course against you if you selected which should be used and which should not. If we had a low class drug store I do not think we should allow its advertisements in the Journal. If you appoint a committee and it will give us the names of two or three that are not objectionable we will be glad to run their advertisements.

Doctor Martin suggested the names of The Ballard Optical Company, The D. M. Dockstader Optical Company, The Douglas Optical Company, The Montgomery Optical Company, and a new one about to open, The J. N. Kalish Optical Company, as being acceptable, and the wholesale firms, The Southeast Optical Company, and The American Optical Company.

DOCTOR BUNCE: Would it be agreeable to the Club to try to get the same information if advertisements are submitted from other cities than Atlanta? None of these men has ever used the title, "Doctor" in the advertisements submitted.

(Doctor Martin thought this could be done.)

The Associate Editors of the Journal were commended for their excellent work and were re-elected for the ensuing year. Each Associate Editor will be allotted for reprints the sum of fifty dollars from the income from ads.

The Committee adjourned at 2:40 P.M.

W. A. SELMAN, *Chairman*.

The Southern Medical Association will hold its Twenty-Sixth Annual Meeting in Birmingham, Ala., November 16, 17, 18, 1932.

THE JOURNAL

OF THE

MEDICAL ASSOCIATION OF GEORGIA

Devoted to Welfare of Medical Association of Georgia

139 Forrest Avenue, N.E., Atlanta, Ga.

September, 1932

PARANASAL DISEASE

Egyptologists, during the course of their excavations, have unearthed many trephined skulls. While the purpose of the hole may have been to let out some evil spirit, the evil spirit very likely manifested itself by pain. In all probability some of these head pains were due to empyema of the paranasal sinuses.

Cases of sinusitis with definite local symptoms are of little concern as the source of the trouble is evident, and may be easily corrected. It is the case of paranasal sinus infection without local symptoms or with local symptoms masked by those of some remote organ, that deserves special consideration by men in almost every field of medicine.

The infected paranasal sinus is one of the last pieces to be fitted into place in the jigsaw puzzle arranged for diagnosticians by Rose-now in his theory of focal infection. Although Doctor Mithoefer tells us that Hippocrates associated stomach disorders with head catarrh, only during recent years have medical men really begun to associate infection of the paranasal sinuses with general ailments. Many internists, in their search for foci of infection, do not hesitate to order extensive gastrointestinal x-rays, to inject dyes for diagnosis of gallbladder disease, to massage prostates, and to advise removal of tonsils and teeth; but are very loath to take up the study of the paranasal sinuses.

Probably one reason for the lack of proper appreciation of the sinuses as foci of infection is that the subject has become shrouded in a mist of uncertainty. In any group of rhinologists discussing this problem there will be almost as many ideas expressed as there are men present. This was illustrated in the symposium on the subject in Savannah. The general practitioner can hardly be blamed for a hands-off attitude on a subject where even specialists differ so widely as to the proper procedure. While in a limited number of cases

this uncertainty is warranted, in the large majority of instances the diagnosis is easy and treatment comparatively simple. Indeed, in most cases of clinical sinusitis a single correctly taken and interpreted x-ray plate will rule out the sinuses as foci of infection or else indicate further study. With such a simple method of diagnosis in the hands of almost everyone it is regrettable that so often in a patient with remote symptoms due to sinus disease the true nature of the disturbance will not be suspected. Because these patients rarely consult the rhinologist unless referred, the full responsibility for their welfare rests upon the physician with whom they first come in contact. This responsibility is not being met. In a recent issue of this journal was reported a case of chronic pulmonary disease associated with an easily diagnosable sinus infection who, although under constant medical care for many years (including ad-

The JOURNAL would like to record the scientific work of Georgia doctors. It earnestly requests, therefore, that each physician in the State who publishes a contribution in some other medical periodical submit an abstract of the article for these columns.

missions to our state institution for tuberculous patients and removal of tonsils and teeth) had had no examination of her paranasal sinuses. This should not be true. The paranasal sinuses with their tremendous potentialities for disseminating toxins should not be so slighted.

The difficulty of curing a diseased sinus depends largely upon the duration of the infection. In many instances if one waits for clear-cut local manifestations before directing attention to the sinuses much valuable time will be lost. The diagnostician should look upon the sinuses exactly as he does upon the tonsils and teeth. He should become *sinus-minded*; and, in looking for foci of infection, keep constantly in mind the possibility of infection within these cavities.

If the internist will forget about the 15 per cent of cases which always have and probably always will furnish the rhinologists with material for heated discussions; and will give closer attention to the 85 per cent that

can be diagnosed by means of a single 8x10 x-ray plate his batting average in handling the focal infection problem will be better.

TAYLOR S. BURGESS, M.D.

HISTORY

To All Members of the Medical Association of Georgia:

The Committee on History of Medicine in Georgia is working to prepare a Medical History of Georgia for publication at the earliest possible date. Considerable information has been collected, and a great deal more should be collected. The secretary of every county society has been requested to send in historical data concerning his society, but only a limited number of replies have been received.

There are many interesting facts concerning the history of medicine and of doctors in Georgia, but it is impossible to collect all these facts without the active co-operation of members of the association. The History of Medicine in Georgia during the eighteenth century is particularly difficult to obtain.

The purpose of the present communication is to appeal to every member of the association to send the committee at once, any facts which should be included in this work. The committee realizes that when the book is finally published, they will be asked "Why didn't you say something this or that?" or "Why did you not include the biographical sketch of Dr. So-and-So?" Below is given a list of the deceased doctors whose biographies will be included in the book. If members of the association know of other Georgia doctors who should be included in this list, or who think that any of these should be omitted, please let us hear from you at once. Please send brief sketches of other doctors who should be included.

Yours very truly,

FRANK K. BOLAND, *Chairman.*

Committee on History of Medicine in Georgia.

478 Peachtree Street, N.E. Atlanta, Ga.

BIOGRAPHIES

Abbott, Joel	Burroughs, W. B.
Alexander, J. F.	Byrd, H. L.
Alfriend, E. W.	Caldwell, F. H.
Allen, J. E.	Calhoun, A. B.
Antony, M.	Calhoun, A. W.
Armstrong, W. S.	Campbell, H. F.
Arnold, R. D.	Campbell, Robert
Baldwin, M. A.	Charlton, T. J.
Banks, Richard	Charters, W. M.
Barnett, Wm.	Clark, M. A.
Bathey, Robert	Coleman, J. S.
Barron, R. B.	Cooper, G. F.
Benedict, S. C.	Cortelyou, P. R.
Bizzell, B. W.	Cromwell, B. M.
Bizzell, W. D.	Crook, J. M.
Blaine, S. C.	Daniel, W. C.
Brickell, John	Darby, J. I.
Brownson, Nathan	Davis, E. C.
Bulloch, W. G.	Davis, W. L.
Burford, Hugh	Divine, K. C.

Dowman, C. E.	McKown, J. A.
Doughtry, W. H., Sr.	McRae, F. W.
Dudley, M. J.	McHatton, Henry
Dugas, L. A.	Mayson, A. S.
Duncan, J. W.	Maddox, W. D.
Duncan, Wm.	Maxwell, G. T.
Edge, J. B.	Means, Alex
Elliott, W. H.	Massey, R. J.
Eve, J. A.	Miller, H. V. M.
Eve, P. F.	Mitchell, T. S.
Eve, S. C.	Moore, K. P.
Fish, J. D.	Myers, R. P.
Ford, L. D.	Newton, Geo. M.
Fort, Tomlinson	Nicolson, W. P.
Foster, Eugene	Nisbet, R. B.
Garvin, I. P.	Nottingham, C. B.
Gaston, I. P.	Nunn, R. J.
Gaston, J. M.	O'Daniel, M. H.
Gerdine, John	O'Daniel, Wm.
Goodman, J. C.	O'Keefe, D. C.
Goss, I. H.	Orme, F. H.
Grandy, L. B.	Olmstead, J. C.
Gray, J. A.	Poole, W. H.
Green, T. F.	Pope, J. E.
Griggs, A. W.	Posey, J. F.
Habersham, J. C.	Powell, T. O.
Hall, J. F.	Powell, T. S.
Hall, Lyman	Rauschenberg, C. W. E.
Hall, W. H.	Richardson, C. P.
Hammond, D. W.	Ridley, Frank M.
Hardee, B. W.	Ridley, R. B.
Hardon, V. O.	Roddy, R. L.
Harris, H. F.	Roy, G. G.
Harris, Juriah	Rudicil, R. Y.
Heery, D. O. C.	Screven, J. P.
Herrman, J. D.	Searcy, D. B.
Hitch, R. M.	Semmes, A. J.
Holmes, G. W.	Shivers, M. M.
Holmes, J. B. S.	Smith, R. M.
Holt, W. F.	Stanford, F. A.
Houston, J. P. S.	Steiner, H. H.
Hurt, C. D.	Tailfer, Patrick
Irvine, John	Taliaferro, V. H.
Jelks, E. A.	Terrell, W. M.
Johnson, J. M.	Thomas, J. G.
Johnson, J. T.	Thompson, P. H.
Jones, E. G.	Thrash, E. C.
Jones, Geo.	Todd, J. S.
Jones, Jos.	Tutt, W. H.
Jones, N. W.	Walker, Fleetwood
Kendrick, R. T.	Waring, J. J.
Kendrick, W. C.	Watkins, H. L.
Kendrick, W. S.	Westmoreland, J. G.
Kollock, P. M.	Westmoreland, W. F.
LeConte, John	White, S. G.
LeConte, Jos.	Whitehead, A. G.
LeHardy, D. J. C.	Wilcox, G. A.
Logan, J. P.	Williams, Henry M.
Long, C. W.	Williams, Howard J.
Long, R. L. Y.	Wood, Robert C.
Love, W. A.	

GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. ABERCROMBIE, M.D., *Director*

PRACTICAL SERVICE

To assist the physicians of our state in being of service to their clientele the Department of Public Health has prepared literature for distribution, that can be given to the patient by the physician or mailed direct from the Department on his request. This should be appreciated and educate the people in the right way.

The ampoules of silver nitrate, 1 per cent solution, for use in the eyes of the new born are carefully made in the laboratory and are sent physicians on request. The use of such solution is not only advisable, but under our law is obligatory. It is known that this solution is not stable and that care in keeping it so it will be effective is necessary. The solution furnished is put up in wax ampoules of proper consistency and black in color. The solution so put up will be effective an indefinite length of time. It is a problem to make these ampoules of such consistence that they should stand all kinds of weather, and especially in cold weather they may be somewhat brittle, so we suggest that they be clasped in the hand of the attendant to get them about body heat before puncturing them in very cold weather.

The law says that this solution must be used in the eyes of every baby born in Georgia immediately after it is born. It specifies solution silver nitrate 1 per cent and not any other solution or mixture. If a physician uses anything else and there should follow an infection, that physician might wish that he had used the ampoules furnished free of charge by the Department of Public Health.

There is another law that requires the physician to give to his patient instructions as to the prevention of the spread of venereal diseases. Every physician, we are sure, wishes to prevent the spread of syphilis and gonorrhea as well as comply with our laws. Such instructions have been compiled and are sent free of charge to all physicians who request them. Ask for "Venereal Disease Instruction for Patients". It is an 8-page folder about the size of a prescription blank. It should be of assistance to you and your patient. Write for your supply: address Venereal Disease Division, Department of Public Health, State Capitol, Atlanta, Georgia.

To assist the physician in getting the cooperation of his patient a pamphlet has been prepared by the Children's Bureau of the Department of Labor of our Federal government known as "Prenatal Care", also one much

smaller, "Minimum Standards of Prenatal Care". These are for free distribution by the Division of Child Hygiene, Department of Public Health, Capitol, Atlanta, Ga. We will send them either direct to the patient or supply them to your office for distribution.

We have just received from the printer 50,000 copies of our Baby Book. This book has been rewritten and revised. This work was supervised by a committee appointed by the Georgia Pediatric Society, and to them we are greatly indebted. This book should be in the hands of every mother. It contains 100 pages, illustrated and written in plain language, so as to be easily understood by the mother. We will send them as indicated above as you prefer. This is the fifth edition, and if you have not examined it we hope you will. Write a postal card asking for a copy for this purpose.

In this connection we would be glad to have constructive criticism about the book, so that we can make it better the next time it is revised.

The Department of Public Health is always glad to send literature, and we have information along various lines, such as Sanitation, Sanitary Privies, Mosquito Control, Infectious Diseases, Sex Education and Venereal Diseases, Vital Statistics Information. In fact, we invite your inquiries about anything on which you think we could be of service to you.

MORTALITY STUDY COMMISSION

The Medical Association of Georgia always alive to the best interests of the citizens of our state, always ready and anxious to be alert to prolong life and prevent pain and suffering, at its last meeting entertained a resolution creating a commission to study the exceedingly high maternity death rate of our state and also to study the causes of death in children under one year of age, which rate is far too high. The resolution was favorably considered by the House of Delegates and the President of the Association has appointed the Commission, two physicians from each congressional district.

This committee will institute a thorough study into the cause of the deaths of two mothers each day in Georgia from diseases peculiar to childbirth. To be exact, 616 mothers died in childbed last year. Georgia has one of the highest, if not the highest rate of any state in our country and the United States has the highest of any civilized coun-

try, the total being in round numbers 16,000 per year. It is thought by many of our obstetricians and physicians that at least two-thirds of these deaths can be prevented. To do so there must be an educated public, that the expectant mother will seek early advice of a reputable physician. This is a stupendous undertaking; it will take a long time to put it over, but it can be done. It must not be forgotten that in dealing with this matter that we have in round numbers about 23,000 births that are not attended by a physician, and that for a long time to come there will be many mothers who cannot have this service. For this mother we should do all that we can to assist her to save her life and that of her baby, also to prevent the likelihood of other children being deprived of their mother.

The question of stillbirths is perhaps a separate and distinct matter from that incorporated in the resolution as passed by our Association, yet it is of great importance, as we had reported to our Vital Statistics Department 3,683 deaths, and it is quite likely that many were not reported. In this connection it might be significant to mention that in our Wassermann Department we are making about an average of 4,000 blood examinations per month, with a finding of about 24 per cent positive. There are also many babies born alive with syphilis who die early in life.

The question of infant mortality is one to which we should give our best efforts, because it offers to us an opportunity to do much valuable work. In 1931 we lost 4,240 babies under one year of age, giving us a rate per thousand live births of 68.6. In 1930 it was 78.1; in 1924 it was 92.7. We have, therefore, been making progress, but we should not be satisfied, as at this rate it means that we have 12 babies to die every day in our state. If you add to this the reported stillbirths it gives us 7,923 babies' lives lost each year.

With financial conditions as they are today we may expect an increase in deaths, not alone in this age group, but in all groups.

The Commission which is to study this matter will be supplied with exact copies of each death certificate filed with the Department of Public Health for the year 1932, and from these it is thought that definite information can be obtained that will be of inestimable assistance to our physicians.

The Commission which is to study this earnest, wholehearted co-operation of the entire profession of the state. This is necessary to the ultimate finding and recommendation to the Association.

The Commission will have the best wishes of everyone who is interested in the conservation of human life and the prevention of suffering.

GEORGIA DEPARTMENT OF PUBLIC HEALTH DIVISION OF LABORATORIES

Semi-Annual Report—First Six Months 1932

The semi-annual report of the State Department of Health Laboratories for the first six months of 1932 shows that the laboratory has made a total of 73,002 examinations. This is a marked increase over the corresponding period of 1931, when a total of 45,439 examinations was reported. The distribution of typhoid vaccine also shows a decided increase as 342,714 c.c. have been distributed during the first six months of 1932 as compared with 172,285 c.c. distributed during the corresponding period of 1931.

Examinations for Tuberculosis

Positive	249
Negative	1,485
Doubtful	22

Total..... 1,756

Examinations for Diphtheria

Positive	64
Negative	544
Doubtful	12

Total..... 620

Widal Test for Typhoid (Dried Specimens)

Positive	38
Negative	114

Total..... 152

Agglutination Reaction (Liquid Specimens)

Total 1,561

Positive

Typhoid	377
Paratyphoid	14
Brill's	102
Undulant	24
Tularemia	26
Miscellaneous	1

Blood Cultures

Positive	177
Negative	1,283

Total..... 1,460

Positive

Typhoid	170
Paratyphoid	2
Undulant	2
Other Organisms	3

Stool and Urine Cultures

Positive	63
Negative	999

Total..... 1,062

Positive

Typhoid	57
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Dysentery	5
Other Organisms	1
<i>Smears for Gonococci</i>	
Positive	226
Negative	647
Doubtful	49
Total	922
<i>Blood Smears for Malaria Plasmodia</i>	
Positive	155
Negative	11,830
Doubtful	3
Total	11,988
<i>Examinations for Intestinal Parasites</i>	
Positive	7,662
Negative	14,877
Total	22,539
<i>Wassermann Test for Syphilis</i>	
Positive	6,141
Negative	19,263
Doubtful	117
Anticomp.	78
Total	25,599
<i>Examinations for Rabies</i>	
Positive	174
Negative	228
Doubtful	6
Total	408
<i>Miscellaneous Examinations</i>	
Total	325
Bacteriological	42,793
Wassermann	25,599
Water	4,610
Total	73,002

BIOLOGICAL PRODUCTS DISTRIBUTED

Number units diphtheria antitoxin.....	8,531,000
Number units tetanus antitoxin.....	2,880,000
Number c.c. toxin-antitoxin	7,482
Number c.c. toxoid	22,078
Number c.c. plain typhoid vaccine.....	261,946
Number c.c. mixed typhoid vaccine.....	80,768
Number c.c. carbon tetrachloride mixture....	22,326
Number smallpox vaccine points.....	12,280
Number Schick tests.....	3,040
Number silver nitrate ampules.....	24,464
Number c.c. tuberculin	3,792
Number c.c. anti-meningococcus immunizations	50
Number c.c. anti-meningococcus serum.....	745
Number c.c. undulant fever vaccine.....	65
Number rabies treatments.....	935
Number injections rabies canine vaccine.....	1,051
Number Dick tests.....	20

SIXTH DISTRICT MEDICAL SOCIETY

The regular summer meeting of the Society was held at Hotel Elder, Indian Springs, on Wednesday, June 29, 1932. The President, Dr. A. H. Frye, presided. Invocation by Rev. M. R. Heflin, of Jackson. The scientific program was as follows:

1. Medical Shock, Dr. Fred L. Webb, Macon. The symptoms, frequency, relative importance and plan of treatment of this condition were covered. In discussion, Dr. O. H. Weaver emphasized the importance of intravenous glucose and saline.

2. Osteomyelitis, Dr. John I. Hall, Macon. Doctor Hall limited his paper to the acute hematogenous diffuse osteomyelitis. He discussed the various types and plans of treatment emphasizing particularly the importance of early and adequate surgery. Dr. O. H. Weaver also emphasized the importance of this surgical emergency.

3. A telegram was read from Dr. B. M. Cline, of Atlanta, expressing his regrets at being unable on account of illness to present his paper on "Peroral Endoscopy" as scheduled.

4. Transurethral Resection of the Prostate, Dr. Ernest Corn, Macon. Doctor Corn discussed the indications, technique, and results of this procedure and demonstrated the machine and equipment for doing it. He also demonstrated specimens removed in several cases. This paper was discussed by Dr. K. S. Hunt, Doctor Webb, and Dr. C. H. Richardson.

5. Incidence of Blood Pressure in Five Hundred Physical Examinations, Dr. R. L. Carter, Thomaston. A report was given of the blood pressure findings in this series of supposedly normal individuals. Deviations both above and below were noted with some discussion as to their significance. In discussing this paper, Doctor Atkinson emphasized the importance of worry and nervous strain as a hypertensive factor. Doctor Rogers mentioned the importance of hereditary factors.

6. Dr. W. K. Stewart, of Macon, was not present to present his paper on "The Need of a Uniform Public Health Program."

7. The Post-Operative Patient, Dr. O. H. Weaver, Macon. The importance of post-operative care, complications to be looked for and general principles for handling them were presented. Doctor Rogers mentioned the importance of post-operative blood pressure observations. Doctor Richardson discussed the element of luck in post-operative care. Doctor Newman warned against doing too much to the patient. Doctor Kay emphasized the importance of common sense.

Following the scientific program, luncheon was served in the dining room of the hotel.

The afternoon session was addressed by Dr. M. M. Head, President of the Association. He discussed the following points: (1) Education of the public on matters of medical legislation. (2) Duties of the individual physician to organized medicine and its constituent societies. (3) Importance of the Woman's Auxiliary. (4) The danger of the present political status of the State Department of Health. (5) Pro-

posed legislation to increase the liability from \$100.00 to \$500.00 under the Workman's Compensation Act for injured laborers who require prolonged medical care and hospitalization. Compulsory liability insurance for the protection of injured persons, hospitals, physicians and damaged property. An adequate sterilization law. Inspection and protection of hospitals.

Doctor Richardson, President-Elect of the Association, followed Doctor Head, endorsing his views and emphasizing especially the following: (1) The importance of the State officers getting the ideas of the individual society members. (2) Political support of legislators favorable to our cause. (3) Endorsement of sterilization legislation. (4) Plans for meeting of Association in Macon in May, 1933.

Dr. K. S. Hunt, Councilor, discussed the question of membership in the local county societies.

The minutes of the previous meeting were read and adopted. The financial report was read and approved.

Dr. O. H. Weaver moved that suitable resolutions be drawn up by the secretary relative to the society's loss in the recent death of two of its members, Dr. A. F. White, and Dr. M. A. Clark and that a copy be mailed to the bereaved families.

The time and place for the next meeting was set as December 7, 1932, at Macon. The meeting was then adjourned.

H. C. ATKINSON, M.D.
Secretary.

EIGHTH DISTRICT MEDICAL SOCIETY

The Eighth District Medical Society met at 10:00 A.M. at the Madison Theatre, Madison. The meeting was opened with prayer by Rev. A. W. Quillian, of Madison. The Address of Welcome by the Hon. Albert Foster, Madison. Welcome Address by Dr. D. M. Carter, Madison, on behalf of the Morgan County Medical Society. Dr. W. E. McCurrey, Hartwell, responded. The following papers were read: "Endometrial Hyperplasia," by Dr. Paul L. Holliday, Athens; "Treatment of Abortions," by Dr. Philip R. Stewart, Monroe. These papers were discussed by Drs. Hal and T. C. Davison, Atlanta; Dr. M. M. Head, Zebulon; Dr. J. W. Davis, Athens. "Papilloma of the Rectum," by Dr. John A. Hunnicutt, Athens. Discussed by Dr. John Gerdine, Jersey, and Dr. H. M. Fullilove, Athens. "Hoarseness, A Symptom of Serious Import," by Dr. W. H. Cabaniss, Athens. Discussed by Dr. Allen H. Bunce, Atlanta. "Prostatic Resection," by Dr. W. A. Upchurch, Atlanta. Discussed by Dr. W. C. McGeary, Madison; Dr. M. A. Hubert, Athens; Dr. Hal Davison, Atlanta; and Dr. Stewart D. Brown, Royston.

Meeting recessed for a barbecue luncheon.

After lunch Dr. W. D. Gholston, Vice-President, presiding, introduced Dr. Stewart D. Brown, of Royston, President of the Eighth District Medical Society, who read a paper on "The Treatment of Fractures". Illustrated with Roentgenographs.

Dr. Marvin M. Head, Zebulon, President of the Medical Association of Georgia, was introduced and gave an address on the "Legislative Aims of the Asso-

ciation". Papers: "Infant Mortality," by Dr. Linton Gerdine, Athens. "Maternal Mortality," by Dr. S. S. Smith, Athens. Discussion was opened by Dr. N. G. Slaughter, Athens, from the standpoint of the dentist, and a general discussion followed.

Officers elected for the year 1932-33 were:

President, Dr. W. C. McGeary, Madison.

Vice-President, Dr. John Gerdine, Jersey.

Secretary-Treasurer, Dr. Linton Gerdine, Athens.

The Society was invited to hold its winter meeting in Athens, on the second Wednesday in February, and the annual summer meeting in Hartwell, on the second Wednesday of August, 1933.

Motion carried thanking the Morgan County Medical Society and the citizens of Madison for their hospitality. Adjourned.

LINTON GERDINE, M.D.
Secretary.

BOOK REVIEW

History of Medicine in the United States. By Francis R. Packard, M.D., two vols. Paul B. Hoeber, New York, 1931.

In 1901, Doctor Packard, the eminent editor of the *Annals of Medical History*, published a History of Medicine in the United States from the English colonization to the year 1800. With the present volumes the story is largely revised and brought to the beginning of the twentieth century. It is extensively illustrated and there are chapters concerning the earliest medical schools, Pennsylvania, Transylvania, King's College, Harvard; the great hospitals, Pennsylvania, New York, Massachusetts General; the medical profession in the wars; medicine in the various states; and detailed biographies of pioneer medical men, as McDowell, Charles Caldwell, Gross, Mott, and Warren.

A generous chapter has been given to Crawford Long which should bring joy to the hearts of those Georgians who have labored so tirelessly to establish his priority in ether anesthesia.

Every student of medicine should own this work. The "Grateful Patient" might well follow the example of one of mine and substitute it for the cigarette case, the ivory tipped stethoscope, or the gold thermometer holder.

D. C. ELKIN, M.D.

THE SOUTHEASTERN SURGICAL CONGRESS FOURTH ANNUAL ASSEMBLY

The attention of the medical profession is called to the announcement of the Fourth Annual Assembly of the Southeastern Surgical Congress which will be held in Atlanta, Ga., March 5-7, 1933.

Begin plans now to attend. The same high class program which characterized the second and third assemblies will be provided.

Watch for the program.

B. T. BEASLEY, M.D.
Executive Secretary.

GEORGIA STATE NURSES ASSOCIATION

Officers

President—Miss Alice F. Stewart, R. N., Augusta.
 First Vice-President—Miss Dora A. Kershner, R. N., Macon.
 Second Vice-President—Miss Lillian Cumbee, R. N., Emory University.
 Secretary—Miss Florence Pund, R. N., Augusta.
 Treasurer—Miss Jane Van De Vrede, R. N., Atlanta.
 Miss Jane Van De Vrede, R. N.
 Executive Secretary

District Presidents

First—Mrs. Dorothy Treackle, R. N., Savannah.
 Second—Mrs. B. Y. Vann, R. N., Thomasville.
 Fourth—Miss Lucia Massee, R. N., Cuthbert.
 Fifth—Mrs. Sue B. Paille, R. N., Atlanta.
 Sixth—Mrs. Sarah P. English, R. N., Sandersville.
 Seventh—Miss Shirley Hamrick, R. N., Cedartown.
 Eighth—Miss Lynda Bray, R. N., Athens.
 Ninth—Miss Ruby Falls, R. N., Gainesville.
 Tenth—Mrs. Olive Barbin, R. N., Augusta.

Headquarters

131 Forrest Avenue, N. E., Atlanta.

NURSES WILL MEET IN ALBANY

Janet M. Geister, R. N., Director at Headquarters of the American Nurses' Association, will be the stellar attraction of the program of the twenty-sixth annual convention of the Georgia State Nurses' Association, to be held in Albany, October 27-28-29, according to Jane Van De Vrede, Executive Secretary.

The convention, which is really a joint one of the three state nursing organizations—the Georgia State Nurses' Association, the Georgia League of Nursing Education and the State Organization for Public Health Nursing—should bring together several hundred registered nurses from over the state, for a discussion of nursing service as related both to the welfare of the public and the nursing profession.

Alice F. Stewart, of Augusta, President, will preside over the sessions of the Georgia State Nurses' Association; Mrs. Eva S. Tupman of Atlanta, President will conduct the meetings of the Georgia League of Nursing Education, and Mrs. Anne C. Rivers of Savannah, President of the State Organization for Public Health Nursing, will preside at the meetings of the public health nurses.

Programs of exceptional interest are being arranged by each of these organizations. That of the G. S. N. A. will center around service, particularly around special duty nursing service and the special duty nurse, and Miss Geister is expected to contribute specially to the discussion of this subject, which will come on the first day of the convention, since she must leave Albany October 28 to attend the Alabama State meeting. Her vision, enthusiasm, ability and withal her intense loyalty to the special duty nurse, together with her exceptional experience in nursing, in social service and in health work, and her acknowledged position of leadership in nursing in this country, make Miss Geister pre-

eminently fitted to discuss with authority and conviction the service, techniques, problems, etc., of the special nurse.

Miss Lucy M. Hall of Savannah, Chairman of the Private Duty Section of the G. S. N. A., will preside over meetings of the section.

Subjects of special interest in each of the nine district associations will constitute a feature of the program of the State Association, at least one member from each district presenting a paper and leading in discussion of the subject selected.

District and Alumnae Association reports will be given and the various committees of the Association will also make reports. These include the Committee on Distribution of Nursing Service, the Nurses' Service Fund (formerly Relief), Revisions and Membership; and such special committees as the Walter Burns Saunders' Memorial Medal, the Bordeaux School, Mental Hygiene, etc.

An election of officers for the ensuing year will take place during the business session of the Georgia State Nurses' Association.

The State League's program will be concerned with standards of preparation and service.

The program of the S. O. P. H. N. will be an interpretation of all phases of public health nursing service, dramatically presented. Mrs. Anne C. Rivers, R. N., is author.

The State Committee on Red Cross Nursing Service, Miss Lillian E. Cumbee of Atlanta, Chairman, will also present a program.

Albany was selected for the 1932 meeting of nurses because of the interest and effort of members of the Second, the newest of the group of district associations; and the District Association will be the official hostess organization. Miss Helen E. Blanchard, Superintendent of Nurses of the Phoebe Putney Memorial Hospital, is chairman of local arrangements.

Boasting of fireproof hotels, handsome

(Continued on page 376)

WOMAN'S AUXILIARY

OFFICERS

President—Mrs. S. T. R. Revell, Louisville.
 President-Elect—Mrs. J. Bonar White, Atlanta.
 First Vice-President—Mrs. N. Peterson, Tifton.
 Second Vice-President—Mrs. C. Thompson, Millen.
 Third Vice-President—Mrs. J. W. Simmons,
 Brunswick.

Recording Secretary—Mrs. J. E. Penland, Waycross.
 Corresponding Secretary—Mrs. F. B. Rawlings,
 Sandersville.
 Treasurer—Mrs. Chas. Usher, Savannah.
 Parliamentarian—Mrs. Charles Hinton, Macon.
 Editor—Mrs. C. W. Roberts, Atlanta.

EXECUTIVE BOARD MEETING

The President, Mrs. S. T. R. Revell, called a meeting of the Executive Board, which was held at Hotel DeSoto, Savannah, on May 20, 1932.

Motion by Mrs. William Shearouse carried to make a loan of \$50.00 from the Student Loan Fund on or before January 1st, provided funds were available.

The President appointed committees as follows:

Organization

Mrs. Bonar White, President-Elect, Chairman.
 1st District—Mrs. L. F. Lanier, Sylvania.
 2nd District—Mrs. Nichols Peterson, Tifton.
 3rd District—Mrs. Herschel Smith, Americus.
 4th District—Vacant.
 5th District—Mrs. Olin S. Cofer, Atlanta.
 6th District—Mrs. Wallace Bazemore, Macon.
 7th District—Vacant.
 8th District—Mrs. B. C. Teasley, Hartwell.
 9th District—Mrs. C. L. Ayers, Toccoa.
 10th District—Mrs. Jas. B. Dillard, Davisboro.
 11th District—Mrs. W. M. Folks, Waycross.
 12th District—Mrs. C. W. Findley, Vidalia.
 This Committee is composed of District Managers.

Health Education

Mrs. Nichols Peterson, First Vice-President, Chairman.
 1st District—Mrs. V. H. Bassett, Savannah.
 2nd District—Mrs. C. A. Fleming, Tifton.
 3rd District—Mrs. Robert Pendergrass, Americus.
 4th District—Mrs. W. R. McCall, LaGrange.
 5th District—Mrs. Jas. N. Brawner, Atlanta.
 6th District—Mrs. Benj. Bashinski, Macon.
 7th District—Mrs. Jackson Landham, Atlanta.
 8th District—Mrs. D. N. Thompson, Elberton.
 9th District—Mrs. E. M. McDonald, Jefferson.
 10th District—Mrs. J. J. Pilcher, Wrens.
 11th District—Mrs. C. M. Stephens, Waycross.
 12th District—Mrs. W. A. Coleman, Eastman.

Student's Loan Fund

Mrs. William Shearouse, Savannah, Chairman.
 Three year term:
 Mrs. Herschel Smith, Americus.
 Mrs. Paul Holliday, Athens.
 Mrs. D. H. Garrison, Tate.
 Mrs. J. Cox Wall, Eastman.
 Two year term:
 Mrs. Gordon Chason, Bainbridge.
 Mrs. M. M. Byrd, West Point.
 Mrs. J. E. Penland, Waycross.
 One year term:

Mrs. Lee Howard, Savannah.
 Mrs. Marion Benson, Atlanta.
 Mrs. J. L. King, Macon.
 Mrs. W. J. Cranston, Augusta.

Public Policy and Relations

Mrs. Dan Y. Sage, Atlanta, Chairman.
 1st District—Mrs. Wm. H. Myers, Savannah.
 2nd District—Mrs. M. A. Fort, Bainbridge.
 3rd District—Mrs. A. C. Primrose, Americus.
 4th District—Mrs. R. M. Avery, LaGrange.
 5th District—Mrs. Geo. Niles, Atlanta.
 6th District—Mrs. Chas. Hinton, Macon.
 8th District—Mrs. W. H. Cabaniss, Athens.
 9th District—Mrs. C. L. Ayers, Toccoa.
 10th District—Mrs. Jas. B. Dillard, Davisboro.
 11th District—Mrs. R. L. Johnson, Waycross.
 12th District—Mrs. C. W. Findley, Waycross.

Citizenship

Mrs. F. G. Hodgson, Atlanta, Chairman.
 Mrs. R. L. Kennedy, Metter.
 Mrs. E. L. Evans, Tifton.
 Mrs. Marion Pruitt, Atlanta.
 Mrs. C. W. Roberts, Atlanta.
 Mrs. W. A. Selman, Atlanta.
 Mrs. Chas. C. Harrold, Macon.
 Mrs. W. M. Cason, Sandersville.
 Mrs. R. C. Walker, Waycross.
 Mrs. C. B. Almand, Winder.
 Mrs. G. T. Bernard, Augusta.

Health Film

Mrs. J. A. Selden, Macon, Chairman.
 Mrs. Dan Y. Sage, Atlanta.
 Mrs. R. L. Rhodes, Augusta.
 Mrs. W. R. Garner, Gainesville.

Constitution and By-Laws

Mrs. Allen H. Bunce, Atlanta, Chairman.
 Mrs. Bonar White, Atlanta.
 Mrs. Ralston Lattimore, Savannah.

NEWS ITEMS

Doctor Francis Jones announces that he has resumed practice at Suite 514 Doctors Building, 478 Peachtree Street, N.E., Atlanta. Practice limited to diseases of the skin.

Dr. Warren A. Coleman, Eastman, has been elected to Fellowship in the American College of Surgeons.

The Lowndes County Medical Society met at Hotel Valdes, Valdosta, August 10th. Dr. Frank Bird, Val-

dosta, was elected President of the Physicians Business Bureau; Dr. E. F. Thompson, Valdosta, First Vice-President; Dr. F. H. Thomas, Valdosta, Second Vice-President; Dr. A. F. Saunders, Valdosta, Secretary-Treasurer. Directors elected were: Dr. A. G. Little, Dr. Frank Bird, Dr. E. F. Thompson, Dr. A. F. Saunders, Dr. B. G. Owens, Dr. F. H. Thomas, Dr. J. M. Smith and Dr. J. F. Mixson, all of Valdosta.

The members of the Habersham County Medical Society were entertained at the State Tuberculosis Sanatorium, Alto, by Dr. Kelly N. Joseph on August 4th.

Dr. Frank Easley, Dalton, District Health Officer until this unit was discontinued, has re-entered private practice of medicine and surgery with offices on King Street.

The State Examining Boards, through their joint Secretary, Mr. R. C. Coleman, announce that licenses have been granted to ninety-eight applicants who were successful in passing the examination by the State Board of Medical Examiners to practice medicine and surgery in Georgia. The names and addresses of those licensed are as follows: Lewis E. Abram, Fitzgerald; Clayton A. Adams, Jr., Glenwood; Harry Adolphus, Midville; Edward S. Armstrong, Augusta; James E. Anderson, Atlanta; Martius J. N. Ashhurst, Philadelphia; Hugh H. Barfield, Atlanta; Hampton E. Barfield, Haleyville, Ala.; Crawford F. Barnett, Jr., Madison; Harry B. Baxley, Hephzibah; Germany E. Bennett, Augusta; Joseph J. Bennett, Waycross; Richard A. Billings, Washington, D. C.; Jordan A. Billings, Fairmount; Alexander W. Blumberg, Atlanta; Eldon L. Bolton, Atlanta; Benjamin J. Bond, Savannah; Joe M. Bosworth, Jr., Atlanta; Lester A. Brown, Jr., Decatur; Louis R. Bowen, Tifton; Randall G. Brown, Atlanta; Louie R. Braswell, Covington; William W. Bryan, Jr., Tifton; Joseph L. Carwin, Columbus; Oscar H. Clements, Alamo; Melvis O. Corbitt, Augusta; William S. Cornell, Norfolk, Va.; Merrill H. Curtis, Washington, D. C.; Frank M. Daniels, Jr., Dexter; William B. Davis, Americus; John E. Douglas, Atlanta; Clarence Edens, Emory University; Hoffman T. Elliott, Washington, D. C.; Robert G. Ferrell, Jr., Augusta; Carl C. Garver, Atlanta; Loren Gary, Jr., Georgetown; Robert E. Gary, Georgetown; Benjamin A. Gray, Washington, D. C.; Joseph E. Griffin, Buchanan; Ray H. Griggs, Atlanta; George A. Holloway, Atlanta; Robert D. Harris, Jr., Bowman; Henry C. Holliday, Athens; Robert S. Howell, Atlanta; Charles E. Irwin, Atlanta; Albon L. Jackson, Chicago, Ill.; Gustaf H. Jackson, Jr., Savannah; John J. Johnson, Atlanta; William K. Jordan, Macon; Lowell S. King, Atlanta; Louis I. King, Nashville, Tenn.; Raymond R. King, LaGrange; George F. Klugh, Jr., Atlanta; Joseph H. Leaphart, Augusta; Allen M. Logan, Atlanta; Martin L. Malloy, Vienna; John D. Mangham, Omega; John F. Manning, Alpharetta; Arthur L. Matthews, Jr., Fayetteville; Robert W. Matthews,

Millen; Charles H. Mitchell, Atlanta; Marvin A. Mitchell, Atlanta; William E. Mitchell, Atlanta; Rewan O. Murray, Washington, D. C.; J. Zeb McDaniel, Augusta; Thomas E. McGeachy, Decatur; Frederick E. McLendon, Washington, D. C.; Myrtus Millen; Charles H. Mitchell, Atlanta; Marvin A. R. McWhorter, Bowdon; Lewis H. Ogden, Jr., Blackshear; James R. Paulk, Union Springs, Ala.; Arthur P. McGinty, Jr., Atlanta; Joseph B. Pomerance, Augusta; Nathan Regal, Atlanta; Robert E. Ridgway, Royston; Joseph Rose, Washington, D. C.; Peter M. Ross, Norfolk, Va.; Kye B. Round, Atlanta; Ephraim Scharfman, Wadley; Thomas F. Sellers, Atlanta; James R. Simms, Jr., Atlanta; Cecil C. Smith, Fort Payne, Ala.; Leo Smith, Pearson; Alexander H. Stevens, Jr., Augusta; Franz H. Stewart, Athens; Cyrus H. Stoner, Attapulgus; Samuel D. Strukie, Macon; Morris T. Taranto, Atlanta; Martin V. B. Teem, Marietta; Claude E. Tessier, Augusta; Gideon B. Timberlake, Atlanta; Frank Vinson, Byron; James E. Walker, Washington, D. C.; James R. Westheimer, Americus; Lynn W. Whelchel, Douglas; Thomas A. Williston, Washington, D. C.; David M. Wolfe, Augusta.

Representatives of the Jackson County Medical Society, Kansas City, Mo., in a hearing on August 4th before the Shannon House Committee, attacked government hospitalization of war veterans suffering non-service disabilities. Dr. E. H. Skinner, Kansas City, Mo., supported by Dr. Jabez N. Jackson, Kansas City, Past President of the American Medical Association, and Dr. Harold P. Kuhn, Kansas City, stated that there was neither equity or justice in the promotion and completion of government hospitals when only fifty per cent of the beds in privately owned hospitals were being used; that the indigent ex-service men without service-connected disabilities could be treated at a great saving to the government in the privately owned hospitals; that under present legislation at the present rate the cost would reach \$21,500,000.00 by 1945, which would equal the cost of the World War.

Dr. D. M. Bardley, Waycross, has been elected City Health Officer for Waycross to succeed Dr. J. H. Latimer, deceased.

Dr. and Mrs. S. C. Ketchin, Louisville, entertained the members of the Jefferson County Medical Society and the Woman's Auxiliary at their home on August 5th.

The Fulton County Medical Society met at the Academy of Medicine, Atlanta, August 18th. Dr. C. E. Rushin, Atlanta, gave a case report, "Spontaneous Rupture of the Bladder"; Dr. A. M. Dimmock, Atlanta, case report, "An Interesting Pulmonary Condition"; Dr. B. T. Beasley, Atlanta, discussed "The Present Status of the Medical Profession in the United States and the Suggestions for Improvement"; Dr. R. B. Wilson, Atlanta, read a paper entitled "Syphilis of the Nervous System, Pathogenic and Therapeutic Considerations".

The John D. Archbold Memorial Hospital, Thomasville, announces that Dr. J. Walter Davis, Jr., a graduate of the 1932 class of the University of Virginia Department of Medicine, has assumed his duties as Resident Physician of the hospital.

The Randolph County Medical Society met at the Woman's Club Room, Cuthbert September 1st. Dr. J. C. Patterson, Cuthbert, reported a "Clinical Case"; Dr. F. B. Blackmar, Columbus, read a paper entitled "Diet in the Treatment of Diseases of the Nose"; discussed by Dr. F. M. Martin, Shellman, and Dr. I. W. Irvin, Albany. Dr. W. P. Jordan, Columbus, read a paper entitled "Urinary Obstructions"; discussed by Dr. Loren Gary, Georgetown, and Dr. W. G. Elliott, Cuthbert.

Mr. Frank B. Neely, formerly with W. B. Saunders Company, has accepted the position as representative in Alabama and Georgia of W. F. Prior Company, Hagerstown, Md., publishers of Tice's Loose Leaf Practice of Medicine and Lewis' Loose Leaf Practice of Surgery, edited by Dr. Dean Lewis, Baltimore.

The Fulton County Medical Society met at the Academy of Medicine, Atlanta, September 1st. Dr. Herbert Alden and Dr. Jack Norris, both of Atlanta, gave a case report, "Blastomycosis; Local and General"; Dr. C. B. Upshaw, Atlanta, gave a clinical talk on "The Conservative Treatment of Eclampsia", illustrated with lantern slides; Dr. H. R. Donaldson, Atlanta, read a paper entitled "The Functionless Gallbladder". Discussions were led by Dr. Ben H. Clifton, Dr. Lynn Fort and Dr. Wm. Perrin Nicolson, all of Atlanta.

Dr. A. Dabney Hurt announces the opening of offices in the W. W. Orr Doctors Building, 478 Peachtree Street, N.E., Atlanta, for the practice of medicine and surgery.

The American College of Surgeons will hold its twenty-second annual Clinical Congress in St. Louis, October 17th to 21st, inclusive. The Jefferson Hotel will be headquarters.

The Whitfield County Medical Society was organized in 1913 and chartered by the Medical Association of Georgia in 1915. Its members meet semi-monthly. They have maintained an excellent organization and increased its membership this year.

The Ware County Medical Society met in the Doctors' Room of the Y. M. C. A. Building, Waycross, on September 8th. Dr. H. J. Carswell, Waycross, read a paper entitled "Cretinism or Infantile Myxoedema".

Dr. G. Y. Moore, Cuthbert, Secretary-Treasurer of the Randolph County Medical Society, mailed report of paid members for 1933 on September 1st. Dr. Moore continues to maintain his position as the first secretary to report paid members from year to year.

OBITUARY

Dr. Herbert Respass, Macon; member; Vanderbilt University School of Medicine, Nashville, Tenn., 1906; aged 52; died at his home on August 6, 1932, of heart disease. He was born in Reynolds and after receiving his degree in medicine, served as interne at Macon Hospital, Macon. Later he was associated with Dr. Howard J. Williams in practice. Doctor Respass served as capitan during the World War. He had many friends and enjoyed an extensive practice until he retired about three months ago. Doctor Respass was a member of the Macon Medical Society, Knights of Pythias, Masons, and the American Medical Association. Surviving him are his widow, one daughter, Miss Nell Respass, Macon; one son, Herbert Respass, Jr., Macon. Funeral services were conducted by Dr. J. E. Simmons from the Vineville Baptist Church. Interment was in Riverside Cemetery.

Dr. Ralph L. Williams, Columbus; Atlanta School of Medicine, Atlanta, 1912; aged 45; died at the Columbus City Hospital on August 10, 1932. After graduating in medicine, he began practice at Chipley and continued there until 1914, he accepted the position of City Health Officer at Columbus. Doctor Williams served in the latter position until his death. He was a member of the Masonic lodge and Union Baptist Church. Surviving him are his widow and two daughters, Misses Ruth K. and Julia H. Williams, all of Columbus. Funeral services were conducted from the Union Baptist Church and interment was in the church cemetery.

Dr. Robert Lee Hollis, Hayston; Emory University School of Medicine, Emory University, 1889; aged 68; died at his home on August 11, 1932. He was a prominent Newton county physician until he retired from practice on account of ill health. Interment was in Oakland Cemetery, Atlanta.

Dr. John Williams Mobley, Sr., Milledgeville; member; University of Georgia Medical Department, Augusta, 1894; aged 62; died at an infirmary in Augusta on August 15, 1932. He was a native of Ellenton, S. C., and a descendant of a long line of physicians. Doctor Mobley obtained his collegiate education at Wofford College. After graduating in medicine, he served as house physician at the University Hospital, Augusta, for two years. For many years and until his death, he was Assistant Superintendent of the Milledgeville State Hospital. He was widely known for his ability to treat mental and nervous diseases. Dr. Mobley was a member of the Baldwin County Medical Society and the Presbyterian church. Surviving him are two sons, Mr. G. H. Mobley, Augusta; Dr. Jno. W. Mobley, Jr., Pelham. Interment was in the city cemetery at Augusta. Members of the Baldwin and Richmond County Medical Societies, with a group of nurses from the Milledgeville State Hospital, formed an honorary escort.

Dr. Jesse Havís Riley, Perry; University of Georgia Medical Department, Augusta, 1907; aged 62; died at a private sanitarium in Macon on August 22, 1932. He practiced medicine at Haddock for eighteen years, Baconton for two years, and at Perry for five years. Doctor Riley had a large circle of friends and relatives. He was a prominent physician and held in high esteem by his acquaintances. Doctor Riley was a member of the Perry Methodist Church. Surviving him are his widow; one brother, F. A. Riley, Dawson; two sisters, Mrs. J. G. Brown and Mrs. T. H. Bloodworth, both of Atlanta. Funeral services were conducted by Rev. Herbert Etheridge, pastor of the Perry Methodist Church, from the chapel of Burghard-Connally Company, Macon. Interment was in Riverside cemetery, Macon.

Dr. Benjamin E. Daniel, Claxton; Atlanta School of Medicine, Atlanta, 1909; aged 46; died suddenly at his home on August 23, 1932. He began the practice of medicine in Claxton immediately after receiving a license. Doctor Daniel took an active interest in civic affairs and at times in politics. His career had been one of continuous and progressive service to his community. The county of Evans was created largely through his efforts. He served as the first Chairman of the Board of County Commissioners and one term as mayor of Claxton. Surviving him are his widow, one daughter, Miss Mona Lee Daniel; one son, Benjamin E., Jr. Funeral services were conducted by Elder Willie Wilkerson from the Methodist church.

Dr. Hugh R. Tarver, Guyton; member; University of Georgia Medical Department, Augusta, 1890; aged 63; died suddenly at his home on August 25, 1932. He was widely known and one of the most prominent citizens of Effingham county. Doctor Tarver was a skilled physician and enjoyed an extensive practice in his home county. He was highly esteemed for his charity and benevolence. At the time of his death he was a member of the Georgia Medical Society (Chatham county), Masons, and Baptist church. Surviving him are his widow, and one son, Lanier Tarver. Funeral services were conducted from the Baptist church.

GEORGIA STATE NURSES' ASSOCIATION NURSES WILL MEET IN ALBANY

(Continued from page 372)

public and other edifices, including a theatre costing a quarter of a million dollars, a country club and municipal auditorium in which the nurses' meetings will be held, Albany presents all the attractions and evidences of a strictly modern city, assuring both comfort and pleasure to delegates and visitors.

One of the social functions of the convention will take place at nearby Radium Springs, one of the most beautiful resorts in the country.

The New Albany Hotel Annex will be headquarters for the convention.

COMMUNICATION LEGISLATION

To the Editor:

Please have your stenographer mail out a copy of our legislative program to every candidate for the Legislature in Muscogee County. I enclose you a list with their names checked. Just address them Columbus, Ga. Also have a note on each in red type that this program has the endorsement of the Muscogee County Medical Society and that this society requests them to express their attitude in the matter to either Dr. Frank P. Norman, President, or to Dr. W. P. Jordan, Secretary-Treasurer.

FRANK P. NORMAN, M.D.

President, Muscogee County Medical Society.
Columbus, Ga.
August 16, 1932.

RECENT OBSERVATIONS IN SERUM DISEASE

Luke W. Hunt, Chicago (*Journal A. M. A.*, Sept. 10, 1932), studied the records of serum disease as observed in the Durand Hospital since its establishment, nineteen years ago, and discusses in a brief manner some of the pertinent questions. Serum disease occurred in 28.1 per cent of 2,859 patients who received diphtheria antitoxin in 22.7 per cent of 858 patients who received scarlet fever antitoxin, and in 81.8 per cent of 55 patients who received antimeningococcus serum. The occurrence of a serum reaction after the injection of diphtheria and scarlet fever antitoxin is determined in part by the susceptibility of the individual, by the toxic properties of the serum, and, in the largest measure, by the total quantity of serum given. Concentrated diphtheria antitoxin calls forth reactions in about the same proportion as does whole serum in corresponding bulk. The serum reactions after the use of scarlet fever antitoxin were slightly less in frequency than those after the use of diphtheria antitoxin.

HARD TIMES A MENACE TO GROWING CHILDREN

It is now more important than ever for children to drink lots of milk, according to health authorities. Hard times are making disastrous inroads on the family food-budget. Enforced economy in the expenditure for food is fast becoming a menace to the health and development of growing children. At a time like this milk is very important because it makes up for other food deficiencies. Cocomalt mixed with milk provides a delicious, chocolate flavor food drink—high in nutritive value, low in cost. It points the way to sensible economy. For Cocomalt adds 45 per cent more protein, 48 per cent more mineral salts and 184 per cent more carbohydrate—increasing the caloric value of a glass of milk more than 70 per cent. It contains not less than 30 Steenbock (300 ADMA) units of Vitamin D per ounce. Cocomalt is accepted by the American Medical Association Committee on Foods. Sample can of Cocomalt sent to physicians on request by the R. B. Davis Company, Hoboken, N. J.

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NEXT ANNUAL SESSION, MACON,
MAY 9-10-11-12, 1933

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CLINICAL TEACHING OF PREVENTIVE MEDICINE

Dwight O'Hara, Boston (*Journal A. M. A.*, Aug. 27, 1932), presents the fourth year teaching of preventive medicine at Tufts College Medical School. Patients sick in their homes and cared for by the fourth year students, under supervision, are used as clinical material. The students have conferences with clinicians who are interested but not specifically trained in the science of public health.

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DEVOTED TO THE WELFARE OF THE MEDICAL PROFESSION OF GEORGIA
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Number 10

GOVERNMENT COMPETITION WITH THE PRIVATE PRACTICE OF MEDICINE AND PRIVATE HOSPITALS*

The Federal Government is now buying medical and hospital services at the expense of the tax payer and is giving those services gratis to selected persons, rich and poor, for the treatment of diseases and injuries not incurred in the line of any public duty, either civil or military, and not in the discharge of any obligation whatever owed by the Federal Government to the beneficiaries. The services are donated not according to any established principle but solely according to chance, the chance being determined by the bare accident of the occurrence or non-occurrence of disability in the potential beneficiary and the accident of his being so located as to be susceptible of being transferred to a Federal hospital. This practice is unjust to the Federal tax payer, of course. It tends, moreover, to break down the economic basis on which the medical and hospital services of the country are organized. To the extent that the government carries its plan into practice, it is not only threatening the medical and hospital services of the country, but is building up a favored class of dependents, whose very existence tends to breed more of their kind, with increasing demands for care and treatment at public expense. If anyone has any doubt concerning the existence of that tendency, he need refer only to the records of bills introduced into Congress from year to year to assure himself of it.

The competition of the Federal Government with private practitioners of medicine and private hospitals, to which objection is made, is an unexpected and unwarranted outcome of a legitimate government medical activity, authorized by the Selective Service Act of 1917. That Act provided that persons disabled in military service during the World War should be entitled to medical, surgical, and hospital services, in addition to the other benefits conferred on them by the act. During and after the War, and up to the present

moment, every effort has been made and is being made to establish and maintain an adequate medical and hospital service for the purpose named. No objection has ever been heard against the establishment and maintenance of that service. Not only do gratitude and patriotism require that this service be rendered, but the express promise in the Selective Service Act makes it a debt of honor on the nation. The first departure from the sound principle laid down in the Selective Service Act occurred in an Act providing for the establishment of certain hospitals, approved April 20, 1922. That Act granted hospitalization to certain veterans as a matter of right, when they were suffering from tuberculosis and neuropsychiatric diseases, regardless of the origin of those diseases and without proof of any connection whatever with military service. The World War Veterans Act of 1924, into which was incorporated the provisions of the Act of 1922, just mentioned, went further and authorized the Director of the Veterans' Bureau to admit any veteran to a Veterans' Hospital, no matter what might be the nature and origin of the disability for which the veteran sought treatment, provided only that a vacant bed was available. Although the admission of veterans under the Act last named was discretionary with the Director of the Veterans' Bureau, it has been because of his liberal exercise of that discretion in favor of the veterans that the present situation has been brought about. Congress has never granted to veterans the right to admission to Veterans' Hospitals for treatment, for disabilities not of military origin, except when they are suffering from tuberculosis, neuropsychiatric diseases, and possibly a few other named disabilities. The nearest approach to such commitment on the part of Congress is to be found in Section 1 of an Act approved March 4, 1931, authorizing appropriations to provide additional hospital facilities, but the terms of the Act in respect to this matter are at best vague.

The growth of the government plant and equipment for the free treatment of the diseases and injuries not the result of military service, and the present extent of the care and treatment rendered by the Federal Government gratis to persons suffering from dis-

*Statement by Dr. Wm. C. Woodward, Legislative Council, American Medical Association, Before the Committee of the United States House of Representatives Investigating Government Competition with Private Industry, September 19, 1932.

eases and injuries not of military origin, but incurred only in the ordinary course of life, are shown by the following figures: In 1925, the first year after provision had been made for the treatment of diseases and injuries not of service origin, the total number of admissions to Veterans' Hospitals for all diseases and injuries was 76,812. In 1931, the number had risen to 107,468. In the year first named, admissions of patients suffering from non-service disabilities was 13,243. Admissions in that class in 1931 numbered 82,850. In other words, the number of admissions of patients suffering from diseases and injuries not of service origin rose from 17 per cent to 77 per cent. Viewing the matter in a different way, at the close of 1925, the proportion of beds occupied in Veterans' Hospitals by persons suffering from diseases and injuries not of service origin was 14 per cent, whereas at the close of 1931, 54 per cent of all occupied beds were occupied by patients suffering from non-service connected disabilities.

If this increase in the proportion of patients treated at public expense for non-service connected disabilities and the actual increase in the number of patients of this class so treated were due to a diminution in the number of patients requiring treatment for service connected injuries, with a corresponding release of beds for the accommodation of patients of the other class, there would be a minimum of complaint. That, however, is not the case. After providing that patients suffering from disabilities not of military origin *might* be treated in Veterans' Hospitals *if* beds were available for that treatment, Congress has proceeded to authorize an increase in the number of beds in those hospitals, for the very purpose of accommodating patients suffering from non-service connected disabilities. On June 30, 1931, there were in operation 54 Veterans' Hospitals, with a combined capacity of 26,307 beds. This represented an increase of 7 hospitals and 3,575 beds during that year. On March 4, 1931, Congress authorized appropriations amounting to \$20,877,000 for further hospital construction. And the end is not yet in sight. Notwithstanding all the money that has already been spent for hospitals, there is such a demand for expansion that the Director of the Veterans' Administration has expressed his fear lest, if we continue, at the rate we are now going, or if we broaden the basis of hospitalization, it will require a further capital expenditure of \$100,000,000, with corresponding increase in the cost of administration.

When it is remembered that at the close of

the fiscal year 1931, 54 per cent of the beds in Veterans' Hospitals were occupied by veterans suffering from service connected disabilities, it is apparent that there has been and is no need for the expansion of such hospitals for the accommodation of that class of patients. All recent expansion and practically all expansion now proposed is for the accommodation of veterans suffering from disabilities not of service origin; that is for the care and treatment at public expense of patients suffering from the ordinary diseases and accidents of civil life, such as make up the everyday practice of the private practitioner of hospitals. It is obvious that to the extent to which the government gives such treatment gratis, this class of patients will be withdrawn from private practice and the private practice of medicine and the maintenance of hospitals for the private accommodations of patients will suffer.

The magnitude of the investment that is threatened by this government competition can be recognized when it is known that there are in the United States somewhat more than 160,000 physicians licensed to practice medicine and somewhat more than 7,000 hospitals. It is difficult to estimate the amount of money invested in the education and equipment of the physicians in private practice. Recent studies have shown, however, that the mean cost per year of a medical education is now about \$1,100. With a required two years of pre-medical study, four years of medical study, and one year of internship, it is apparent that the ordinary cost of a medical education can be hardly less than \$5,000, aside from the value of the years of life put into the study necessary to equip a physician for his life work. Even if it be admitted that a large number of licensed physicians are not engaged in practice, the value of the medical education of those who are so engaged can certainly be hardly less than a half billion dollars. To this must be added the cost of the education of supplementary workers, such as dentists, pharmacists, nurses, technicians, and others. To all of this investment must be added the cost of the numerous hospitals. And it is the gross value of all of these that the Federal Government is diminishing when it gives free medical and hospital treatment to patients suffering from diseases and injuries not of service origin who are abundantly able to pay for treatment.

The medical profession cries as loudly as any other group of citizens for the liberal treatment of all persons suffering from disabilities incurred in military service and of the widows and orphans of those who have died

or may hereafter die because of such disabilities. Where persons suffering from disabilities incurred in military service can be best treated in hospitals and homes maintained by the Government, they should be so treated. Where they can be best treated elsewhere, such treatment should be provided for them. Their own interest and welfare are the prime consideration. What the medical profession complains of, however, is the treatment at public expense of veterans who are suffering from disabilities not incurred in military service and having no relation to such service. Patriotism and national honor call for no such gratuity to veterans suffering from non-service disability. No promise was ever made to them of any such gratuity. Every dollar spent for the care and treatment of veterans suffering from disabilities not of service origin diminishes by that amount the money available to veterans disabled in service and to the widows and orphans of such veterans.

The giving of medical and hospital service to veterans suffering from disabilities not of service origin is not in the nature of a reward for service rendered or even in the nature of a pension. The gratuity bears no relation to the military rank of the beneficiary, no relation to the nature of the services rendered, and none to the duration of his service. Whether a veteran does or does not receive a gratuity is contingent solely on accident. If he contracts a disease or suffers an injury in civil life, if he is susceptible of being taken to a more or less remote Veterans' Hospital, he can receive the gratuity. But an equally deserving veteran who does not happen to be sick or injured, or who, if he is sick and/or injured, happens to be so far from a Veterans' Hospital, or so sick or so badly injured, that he cannot be safely taken to it, receives no gratuity. Such a haphazard system of awards of gratuities savors more of a lottery than of a rational system of benefits.

What the medical profession desires is that the Federal Government discontinue this present practice of buying medical service and hospital accommodations in bulk, at the expense of the tax payers and distributing them gratuitously, in competition with physicians and hospitals that depend for their very existence on the income to be derived from caring for and treating such patients, when the beneficiaries of the government gratuity are persons who are suffering from no disability incurred in any public service, military or civil. Government competition of this character will tend to destroy the present value of the enormous investment that has been made for the development of services and facilities for the treatment of the sick

and injured. Government competition of this character will tend furthermore to undermine the morale of the medical profession, to hinder its development, and to leave the people without adequate medical service in time of need, and without adequate medical resources in case of military necessity.

BIOPSY*†

EVERETT L. BISHOP, M.D.

Atlanta

The name "biopsy" is derived from two Greek words, "bios," meaning "life," and "opsis," which means "vision," and signifies "the diagnostic examination of tissue removed from a living subject." This in itself is a rather broad definition and would include the pathologic examination of any tissue removed from a living patient at any kind of operation. In its broad sense, this would include an examination of an entire breast or an entire ovary or any other organ, for such an examination and pathologic diagnosis is made after the operation has been completed, although a more or less absolute clinical diagnosis had been made previous to the operation.

However, we usually speak of biopsy as a means of pre-operative or pre-treatment diagnosis, and it signifies the removal by one of various means, of a small piece of a tumor or perhaps an entire tumor when it is small—the origin of which is obscure or its character too indefinite for diagnosis. The primary purpose of a biopsy is diagnosis, for without the accurate knowledge of the character of a tumor appropriate treatment cannot be instituted.

There has been much argument as to the advisability of a biopsy. No hard and fast rule can be made to apply to biopsy in general, for in certain cases it does no apparent harm and is frequently absolutely necessary for diagnosis. On the other hand, it must be admitted that in some cases, such procedure is fraught with considerable danger to the patient and in these cases other means at hand will give almost or equally as much in-

*Read before the Medical Association of Georgia, Savannah, Georgia, May 18, 1932.

†From the Steiner Cancer Clinic, Atlanta, Ga.

formation as will the microscopic examination of an extremely small piece of tissue.

Ewing says, "It must be recognized that the responsibility of making a positive diagnosis of cancer is considerable, because when that diagnosis has once been made the patient must generally carry the suspicion of cancer the rest of his life. Especially when a major operation or an extensive program of radiation therapy are planned, the safeguard of a biopsy is very desirable. On the other hand, I think it should be acknowledged that the resort to a biopsy is a confession of failure due to clinical inexperience or lack of data from other methods of diagnosis. The easy resort to a biopsy leads to neglect of other less serious methods of diagnosis."

Biopsy was first used routinely by Ruge in 1879, who recommended microscopic study for diagnosis in all lesions of the cervix, after having found thirteen out of twenty-three cases of amputated cervixes to be incorrectly diagnosed. Virchow had little faith in biopsy and warned against this method of diagnosis. However, the employment of biopsy has increased to the present time, some using it on practically all tumors, while others are more cautious and perform biopsy in only selected cases and as a last resort when other methods of diagnosis have failed.

There are a few general rules which should be considered when performing biopsy for diagnosis. One should always remember that in certain conditions it is always advisable to remove the entire tumor rather than to excise only a small piece of the tumor. The removal of the entire tumor is much more desirable in tumors of the skin if they are small, or single lymph nodes or indefinite tumors of the breast, etc., which will be mentioned later. Not only does this removal of the entire tumor more definitely establish the diagnosis, for one is able to examine all portions of it, but frequently it is of a curative value if the tumor proves to be benign or even if of early malignant but localized character.

It has always been thought that the chief danger of biopsy was the spread of metastases after such procedure. Experiments of Wood using the Flexner rat carcinoma failed to substantiate this belief, the test and control animals showing almost the same incidence of

metastases. On the other hand massage or rough handling of a tumor does increase the establishment of metastases as borne out by the experiments of Wood and Tyzzer.

In spite of these experiments it must be admitted that one should be extremely careful in performing biopsy, for we cannot be absolutely sure that such procedure is not going to be detrimental to the patient, and therefore biopsy should be performed with extreme care and only in those cases when it is required for diagnosis and not merely to complete a case record.

No encapsulated tumor should be incised, rather the entire tumor should be removed intact. It should be remembered that many malignant tumors may possess a well formed capsule and as a result of breaking this barrier, the tumor infiltrates the surrounding tissues and fungates through the skin. We may be reasonably sure that biopsy of any ulcerated and infected lesion is safe. I do not believe that a careful incision with knife or cautery can do as much harm than does the ulceration and infection already present. It is extremely important that the one performing biopsy should recognize the active part of the tumor and remove the piece for diagnosis from that portion. We frequently find the biopsy specimen consisting of only infected granulation tissue when the clinical features of the case point definitely to malignancy and further biopsy from other portions prove such a malignant condition to exist.

In suspected tumors of the uterus biopsy has a very definite place as a means of positive diagnosis. The majority of these lesions of the cervix are ulcerated and infected and the same clinical picture may be assumed by cervicitis. Therefore, one must resort to biopsy not only for diagnosis but also for grading the radio-sensitivity of the tumor. In suspected carcinoma of the fundus a diagnostic curettage should be done most gently, for many of these tumors are necrotic and very vascular. Very light curettage will usually remove enough for diagnosis without opening blood channels for tumor dissemination. Tumors of the skin, especially pigmented moles should never be incised—rather the entire lesion should be removed with a good margin

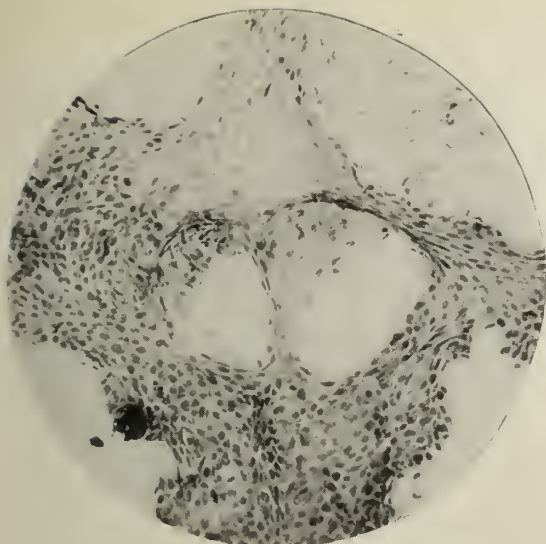


Figure I
Metastatic Epidermoid Carcinoma. Smear from lymph node obtained by needle puncture.

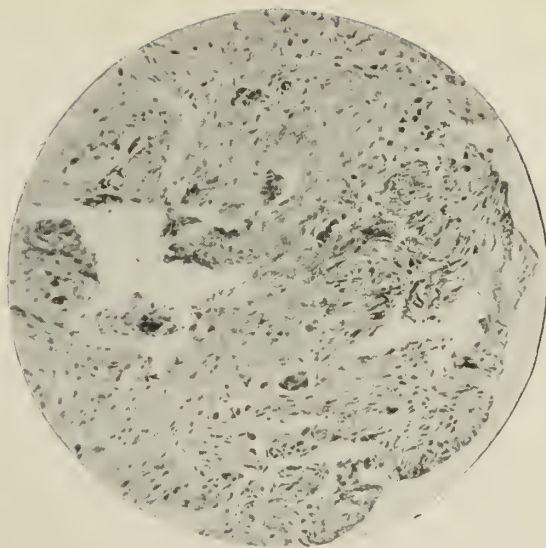


Figure II
Carcinoma of Breast. Paraffin section of specimen obtained by Hoffman trochar.

of healthy skin, for many of these tumors have invisible nodules away from the main tumor and deep in the skin which may be left behind, causing recurrence. There is probably a no more dangerous tumor than melanoma, or malignant mole, which should never be incised, and I am sure that many patients who succumb to this disease would have lived much longer and not have died of melanoma, had their physician made a wide excision of the lesion in spite of the apparent benign character of the mole, instead of cutting along the edge of the pigmented area or trying to destroy the lesion by fulguration. The mere liberation of pigment may be sufficient to start a malignant tumor. Only after repeated questioning do many patients with generalized melanoma remember having a mole removed years before.

In epidermoid carcinoma the squamous type should be excised if possible for most of this type are radio-resistant. These tumors are frequently quite large and ulcerated and therefore biopsy does no harm should there be any question as to diagnosis. It also helps us to discover a small group of the more malignant, undifferentiated and radio-sensitive types which should be treated with radiation and not surgery. Basal cell epidermoid carcinoma is usually quite typical and its response to radium very prompt, and it is therefore much better to radiate these lesions first.

In tumors of the mammary gland the ques-

tion of biopsy is of grave importance. In all cases where there is a single tumor in the gland, it is unquestionably much safer to remove the entire tumor if there is any question as to the exact character. In any case the surgeon should be capable of distinguishing between malignant and benign lesions of the breast by the gross features of the cut surface of the tumor, for in only a very few cases does the gross appearance of the tumor fail to give diagnostic evidence of the true nature of the growth. In larger hospitals the surgeon may have the pathologist present at the operation and rely on his opinion as to further procedure after removing the mass. Frozen section may be and is frequently of considerable help, but one must be familiar enough with the gross features of malignancy in order to select a suspicious area for such examination, and not take sections at random and hope to hit the right area.

In no case should only a piece of the tumor be removed. If the pathologist is not available and the tumor is not definite enough to justify removal of the breast, the tumor should be removed entirely and sent to some pathologist at once for his opinion. I have received a slice of malignant breast tumor which section had been allowed to remain in the surgeon's office for a week before sending for examination and the surgeon was surprised at the early recurrence of the tumor.

If the evidence is more in favor of a malignant tumor in spite of no enlarged axillary nodes, the entire breast should be removed, leaving the axilla and muscles for a later operation should the tumor prove to be malignant. The same is true of multiple tumors of the breast. It is much better to remove the entire breast, which is obviously grossly diseased, than to remove one or two nodules, for even if no malignancy is demonstrated, a definite potential source of future cancer is removed.

In tumors of bone, diagnosis is frequently the most difficult and one may be sorely tempted to cut into the tumor to establish a diagnosis. In the average case a complete and carefully taken history with physical and roentgen examinations will give the diagnosis. However, in a certain percentage of cases, there is reasonable doubt, especially in early osteogenic sarcoma and endothelial myeloma, or Ewing's sarcoma. The roentgenogram of early osteogenic sarcoma is usually typical enough for diagnosis, but Ewing's sarcoma, occurring as it does, chiefly in young individuals, very frequently simulates osteomyelitis and vice versa. However, Ewing's tumor is very radio-sensitive and a diagnostic deep therapy x-ray treatment will be of considerable aid in differentiating this type of neoplasm from inflammatory lesions of the bone. As this tumor is frequently of multicentric origin, giving rise to tumors in more than one bone, biopsy is contra-indicated for amputation probably helps very little toward curing the patient. Giant cell tumors are usually typical enough to be treated with x-ray without biopsy. The response to radiation separates this tumor from osteogenic sarcoma. In osteogenic sarcoma, if the x-ray does not give sufficient information or should it be deemed necessary to have a tissue examination, biopsy should be done only after obtaining the patient's consent for amputation; it should be done under a tourniquet and the amputation should follow at once should the tumor be malignant.

We should always remember well that the biopsy gives a picture of one portion of the tumor only, which may be entirely misleading and for this reason alone it is an extreme-

ly dangerous method of diagnosis in bone tumors.

On the other hand, in those cases in which the microscopic picture is perfectly clear cut and simple, the clinical and x-ray evidence of the character of the tumor is usually just as definite and therefore biopsy is not required. In tumors of bone so situated that amputation cannot be done or in multiple tumors of bone it is doubtful if biopsy is ever justified.

In tumors of lymphnodes I am sure that clinicians and pathologists will all agree that differential diagnosis is most difficult and at times impossible. Only in leukemia, with the aid of a blood smear, can one easily and quickly reach a diagnosis in lymphoid tumors. In other types of tumors of this rather large group, the clinical features frequently give almost as definite information as the microscopic examination. In the presence of a primary tumor of some other near-by structure, one may reasonably assume that the enlarged node is due to metastasis. Pseudo leukemia, with its generalized lymphatic involvement, without leukemic blood picture, is frequently quite typical. Lymphosarcoma and Hodgkins disease usually begin in one node, or one chain of nodes, most frequently the cervical. As these are primarily conditions for radiation, and not surgery, biopsy may frequently be dispensed with temporarily at least. Lymphosarcoma responds to radiation more readily than any other tumor, which separates it from the great majority of cases of Hodgkin's disease and metastatic tumors. Should the tumor not respond, or if for any reason doubt remains, the node may be removed intact, never in part, for pathologic diagnosis, and one may frequently find that he is dealing with a metastasis from an undiscovered or undiscoverable tumor elsewhere and not a primary lymphoid tumor.

Biopsy is of great value in establishing a diagnosis in suspected tumors of the larynx, where early diagnosis is essential for any hope of cure, and it is probable that the high percentage of cures in some clinics is directly due to the judicious use of this method of diagnosis. Suspicious lesions of the lip are probably best treated with radiation without biopsy on account of the liability of early

metastases, although there are those who for good reasons prefer to treat this form of cancer surgically, the biopsy for diagnosis being done just before the excision of the lesion.

Rectal tumors usually are so situated that biopsy can be easily done, but one should be very careful to obtain a piece of the tumor and not simple hyperplastic mucosa.

The removal of a node near a tumor may give valuable information if it shows metastasis, but if not, it does not mean that the tumor is benign, or that more distant metastases have not already occurred.

Methods of biopsy are quite varied. There are those who prefer and believe that the sharp knife is the best method. Others are firm in their conviction that the cautery alone is the only safe method of removing malignant tissue. It should always be remembered that the cautery coagulates the tissue and unless a relatively large piece is removed by this method, the entire specimen will be coagulated and useless for any diagnostic examination.

Biopsy by needle puncture, using an 18 gauge needle and ordinary syringe has lately been employed, its advantage being that there is almost no appreciable trauma, and it can be used for deep tumors when one would hesitate to cut down upon it. By this method, described by Martin and Ellis, the needle attached to the syringe is plunged into the tumor, the plunger slightly withdrawn as the needle is forced into the tumor to allow the cells and fluid to be withdrawn into the needle by vacuum, and then the plunger is allowed to go back into place so as not to scatter the tumor material in the syringe as the needle is withdrawn. The material obtained by this method is spread upon a slide as a smear and any larger fragments may be fixed and embedded as usual. The slide is fixed with gentle heat and stained by any method one may wish. Frequently small clumps of tumor cells are obtained and the diagnosis is comparatively simple, and it is certain that very little trauma has been done. (Fig. 1.).

Recently we have used the Hoffman punch, a trochar instrument with a larger bore than the ordinary needle used in the above method. With this instrument it is

frequently possible to remove a fragment of the tumor large enough for embedding and sectioning. (Fig. 2.). In using this instrument, it is necessary to incise the skin under novocain before introduction. The advantage of this instrument lies in the fact that a small but very frequently diagnostic biopsy can be done on deep seated tumors with very little trauma and very little discomfort to the patient.

In conclusion, each case must be considered by itself and the advisability and desirability of biopsy in one case does not mean that such diagnostic procedure can be applied indiscriminately to any and all types of tumors.

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DISCUSSION ON PAPER OF DR. BISHOP

Dr. C. C. Harrold, Macon: As the years come and go, I wish more than ever that I still had the faith of a child, or if that is impossible that I have the simple faith of a first or second year medical student, that faith which he has in his professor as he hears the teacher describe symptoms and treatment in a didactic way. I realize that is the only way to teach even when I criticize it.

Now, if I appear to criticize Doctor Bishop's paper, I wish it to be understood that it is no criticism of him, nor of pathologists in the large, but my complaint is just a wish that they can be more definite in their opinions and that we could believe them if they were. I have no criticism of them when they give flat footed and positive opinions as they so often and properly do, of frankly, openly, positively malignant cancers of the breast; but it does seem to me that the big boys in the various clinics could get together in their opinions of enlarged lymphatic glands.

There is so much in the paper that I agree with, that it seems foolish to differ on any point. To make myself understood by such of you as do not know me, I wish you to understand that I am one of the strongest believers in consulting pathologists in the state, and as time goes on I probably am becoming more and more dependent upon them. I do feel, however, that they are like the description of women, "We can not live with them and can not live without them." Or, to use another expression, they are like the Presbyterian's description of a lie—"An abomination unto the Lord, but an ever present help in time of need." In this seaport town of Savannah, possibly a more apt description would be to say that I look upon my path-

ologist as a sheet anchor, but that I realize, that in a genuine storm, the sheet anchor alone will not hold.

I thoroughly agree with Doctor Bishop as to the inadvisability of cutting into an encapsulated tumor for a specimen. His thought regarding melanomas is also certainly timely and I wish every doctor in Georgia would read, learn and inwardly digest it.

Regarding breast tumors, my opinion has been given so frequently before various groups in the state, that I am afraid that I have the reputation of being an alarmist here—and I suppose I am, and I think I am more radical than Doctor Bishop. As regards frozen sections in breast tumors, I honestly do not think that it would be proper to express my opinion this close to old Christ Church. I would infinitely rather have the opinion of a firstclass pathologist, or even a first class surgeon (with experience in breast surgery), from a fresh cut in the gross of the whole breast, down through the tumor, than an opinion from a frozen section. When I have the leading pathologists differ as to diagnosis for weeks at the time over lymphatic tissue made from entire glands, having made their own paraffin sections, I become extremely skeptical of the pathologist who rapidly freezes a small piece of tumor tissue and then gives a positive or negative opinion in five or seven minutes. Also, when the leading pathologists of the world make hundreds of whole breast sections hunting for malignant cells in doubtful cases, I realize even more that Doctor Bishop is wise in his warning not to cut into questionable tissue in a breast.

I am not qualified to discuss the bone tumor phase of the paper, and almost wish that he had limited the paper to malignant moles and breasts and uterine conditions. In these conditions, his opinion is like mine.

Unless a very large portion of the whole tumor is examined by the pathologist, a negative report is not negative although the portion is negative.

Dr. A. J. Ayers, Atlanta: From the statistics we learn that one person out of every nine is affected with cancer. Seventy per cent of those developing cancer die from the disease. The remaining 30 per cent are those that are diagnosed early, thereby receiving the treatment in the early stages of the disease. The mortality of cancer is on the increase, the registration areas show that since 1916 cancer deaths have increased from 81.1 per cent to 95.6 per cent in 1927. The actual increase is $14\frac{1}{2}$ per cent. During the past twenty years more work has been done on cancer research with the limited fund, than was done the preceding one hundred years.

I do not agree with Doctor Bishop in regard to the ability of most surgeons to make a diagnosis from a gross specimen removed from the breast. I think this is most difficult in many instances, especially where there is a cystic growth. A tumor mass of this character requires careful examination and I must say oftentimes I am unable to distinguish between the malignant and benign growths of the breast from the gross study.

When symptoms of cancer are present patients should have thorough examinations and the possibility of cancer should be freely discussed. The public is edu-

cated to consult a physician early in acute appendicitis. When symptoms of cancer are present many patients delay months before consulting a physician. In hospitals where there are pathologists, I think it would be a good plan to have a pathologist witness all operations where malignancies are suspected. I would urge all physicians to have frozen sections made when possible on all malignant and questionable tumors. If you are unable to have a microscopic examination of the tissue at the time of the operation, send it to a pathologist and get a complete microscopical study made of the tissue.

Dr. William Perrin Nicolson, Jr., Atlanta: Sir William Osler said "As is our pathology, so is our surgery." Surgeons must and should make free use of pathology and those interpreting it. I wish to pay tribute to pathologists in general and to Doctor Bishop in particular and at the same time compliment him on so successfully separating the wheat from the chaff and giving us so much of value in so short a time. I would like to show you a few slides to emphasize what Doctor Bishop said about not doing too much. If a tumor is encapsulated we should never *INCISE* but always *EXCISE* it. If a specimen is to be obtained by needle or punch it is well to follow this up by some form of coagulation to prevent the tumor from metastasizing and spreading. (Presented lantern slides.)

Dr. J. L. Campbell, Atlanta: I agree with Doctor Bishop in regard to the value of biopsy in early, suspicious lesions. I want, however, to emphasize the fact that the utmost care should be exercised. This seemingly simple procedure may be the means of giving us an early and correct diagnosis, or it may mean the ultimate death of the patient, owing, entirely to the manner in which it is done, and the time that elapses between the biopsy and the complete removal of the tumor with its lymph drainage area.

I also agree with Doctor Bishop that rough manipulation is dangerous. This was proven by Dr. Francis Carter Wood when he demonstrated pulmonary metastases in mice following light manipulation of malignant breast tumors. In making our examinations, therefore, we should be careful how we handle a non-ulcerating tumor, remembering that a cancer is not encapsulated and that the peripheral cells, which are the most active, are easily broken off and pressed into the lymph or blood vessels. I have never forgotten that Dr. Floyd W. McRae, Sr., called my attention to this some fifteen or twenty years ago. He, also, stated that he had never seen an individual escape general metastases where a tumor of the breast had been massaged.

There is practically no danger from a properly performed biopsy on skin or mouth lesions, for they have, as a rule, already begun to ulcerate and we can get the desired material without invading the normal structure. The same is true of the cervix uteri. I make a biopsy in every suspicious ulcer of the cervix, especially in women past 35 years of age. The procedure is simple and painless. The wound can be cauterized at once to seal the vessels and lymph channels.

Dr. V. H. Bassett, Savannah: It is perhaps not generally known that a Savannah physician, Dr. John LeConte, who practiced here during the years 1844-1846, was the first to show that cancer was increasing. Doctor LeConte published a long and complete article in the *Southern Medical and Surgical Journal* in 1846, in which he made the statement that cancer was on the increase.

Dr. Everett L. Bishop, Atlanta, (closing): In regard to Doctor Harrold's remarks concerning lymphoid tumors, the differential diagnosis is frequently just as difficult histologically as it is clinically. Biopsy diagnosis of these tumors frequently results in several different opinions from different pathologists examining the same section, which is no reflection on any pathologist, but an indication of the close relationship of many tumors of this group, probably best classified as "lymphoblastoma" when a finer differentiation is impossible.

XANTHOMA MULTIPLEX: TWO CASES INVOLVING LARYNX AND TRACHEA, AND ASSOCIATED WITH DIABETES INSIPIDUS

In two cases of xanthoma multiplex observed by William P. Finney, Hamilton Montgomery and Gordon B. New, Rochester, Minn., (*Journal A. M. A.*, Sept. 24, 1932), the distribution of the cutaneous lesions was similar and tended to involve flexor surfaces and protected areas. This is in contrast to most cases of xanthoma tuberosum multiplex or xanthoma diabetorum, in which lesions are more commonly found on extensor surfaces and areas exposed to trauma. Both patients had mild diabetes insipidus controllable by solution of pituitary; in one case surely, and in the other probably, the appearance of xanthoma preceded the onset of polyuria; in neither was any tendency of xanthoma preceded the onset of polyuria; in neither was any tendency shown for the polyuria to progress in severity. When diabetes insipidus occurs together with xanthoma, it is usually assumed that a xanthomatous deposit has occurred in the region of the pituitary gland or the floor of the third ventricle. This has been proved in at least one case. It may also be noted that neither of these patients had any chronic disease affecting lipid metabolism nor was there any chemical abnormality demonstrable in the blood. Slight deficiency of hemoglobin and slight leukocytosis existed in both cases. Both patients complained of decrease in ambition and energy of moderate degree; the explanation of this is not apparent. The authors were not able to alter the appearance of the cutaneous lesions by methods which have occasionally been attended by success in the hands of others.

The Bulletin of the American Society for the Control of Cancer, 25 West 43rd Street, New York City, will be the official organ of the society. The former relations with the American Journal of Cancer have been discontinued.

CORONARY THROMBOSIS AND ANGINA PECTORIS*

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Savannah

In America we have begun to differentiate most clearly between angina pectoris and coronary thrombosis. In 1912 Herrick made remarkable contributions. Then Libman, Harman, Gross, Smith, Herrick, Wearn, and Levine began their ceaseless labor on the clarification of these diseases. This generation has witnessed some remarkable changes in cardiovascular thought. Osler as late as 1910 could not distinguish between the clinical aspects of pure coronary thrombosis and the phenomena of anginal stenocardia. He divided cases of angina pectoris into three groups: the mild, the moderate and the severe, and included in the latter group many cases of coronary thrombosis with spontaneous rupture of the heart. Sir James Mackenzie defined the symptoms arising as the result of coronary stoppage from those developing as part of the angina syndrome.

Angina pectoris *per se* cannot be diagnosed by the pathologist at autopsy. Diseases associated with angina, such as luetic aortitis may be diagnosed at autopsy. Coronary occlusion by thrombosis is readily diagnosed by the pathologist. At autopsy we have seen well-developed coronary sclerosis in patients who had no symptoms of angina. We have seen patients with frightful anginal pains who at autopsy disclosed no coronary lesions. Hubble considers the difference between the pain of simple angina and that of coronary thrombosis as merely one of degree and believes that the two conditions are identical. He holds that coronary thrombosis is the most severe expression of angina pectoris. Angina may be compared to coronary thrombosis in the same way that intermittent claudication is related to endarteritis and ultimately thrombosis.

Origin of the Pain in Angina Pectoris and Coronary Disease

According to Pal there is a vaso-constriction of the coronaries and an ischemia of the

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myocardium, which is the result of a perverted reflex. The afferent impulses of the reflex are started in the roughened intima of the sclerotic coronaries, pass to the cord by way of the sympathetic nerves. Here efferent impulses are produced which are carried to the heart by the vagus nerve and cause constriction of the coronaries.

The aorta has the same innervation as the coronaries and lesions of the aorta may also bring about a constriction of the coronaries and the clinical picture of angina pectoris. As these nerve pathways become well-worn, the vaso-constriction of the coronaries becomes a habit, just as the constriction of the smooth muscle fibres of the bronchi in bronchial asthma becomes a habit. This reflex may be the result of impulses that have originated in an inflamed appendix or in an inflamed gallbladder or even in an enlarged prostate. I find case records in which attacks of angina have ceased following operation upon these organs.

One patient has had relief from his angina since Dr. Shearouse performed prostatectomy. Possibly the enforced post-operative rest in bed influenced the disease. Sir Clifford Allbutt held to the aortic origin of the pain. Wenckebach agreed but also held that the condition of the heart muscle and coronary arteries was subsidiary to the aortitis. Sir James Mackenzie ascribed the chief cause of the pain to exhaustion of the heart muscle and pointed out that anginal attacks disappear when muscle failure occurs so that the association of angina and edema is rare. Hubble accepts anoxemia of the myocardium as the most probable etiologic factor in the cause of the pain.

We are indebted to Mackenzie for the explanation of the distribution of the pain in anginal attacks. He describes how the fifth cranial nerve (the pain along the jaw) and the second and third cervical nerves (pain at the back of the head and neck) are implicated through the vagus while the sympathetic system involves the eighth cervical and the first to the fourth dorsal nerves, giving rise to the pain in the chest and in the arms more commonly on the left side. The pain peculiar to angina is that located near the sternum. The reflexes play an impor-

tant part in this syndrome and Mackenzie reports a case in which the mere pressure of the stethoscope is sufficient to induce an attack.

Lambert believes that over-distention of the coronaries rather than their constriction is the cause of the pain. He claims that the pain is produced either by inadequate myocardial contraction or by coronary distention in the obstructed blood vessel proximal to the obstruction. He believes that if there was a sufficient collateral circulation in the coronaries to prevent the vascular distention pain would not occur.

Coronary Sclerosis

Coronary sclerosis is the etiologic factor in about 90 per cent of the cases of coronary thrombosis. As a result of the narrowing of the lumen, coronary sclerosis may produce in the heart muscle the same changes as in thrombosis. Some patients who have had typical signs and symptoms of coronary thrombosis have at autopsy shown only arterio-sclerosis with old and healed infarcts.

Anatomy and Pathology

The coronaries originate in the walls of the aorta. The left coronary is distributed chiefly to the left ventricle, but supplies a part of the anterior wall of the right ventricle. The right coronary supplies chiefly the right ventricle, but also sends a branch to the posterior portion of the left ventricle. The thebesian system of canals which connects the capillary circulation of the heart with the chambers of the heart is of extreme importance in carrying on the collateral circulation when an occlusion has occurred. The capillary and precapillary anastomoses increase with advancing age, so that elderly persons are better able to withstand a slowly advancing thrombosis than young persons.

More than 90 per cent of individuals dying suddenly, that is, within five to ten minutes from the time they considered themselves in their customary health, will show at autopsy a cardiac lesion, usually coronary disease, thrombosis or rupture of the heart at the site of an infarct.

Many cases of death from coronary thrombosis are diagnosed acute cardiac dilatation.

The descending branch of the left coronary artery is most commonly the seat of the thrombosis. The infarcts are of a greyish or yellowish color and are sharply outlined. They may be no larger than a penny or they may involve the whole ventricle. The infarct is of a wider extent toward the endocardium than toward the pericardium and the myocardium usually exhibits one or more fibrous patches.

Etiology

Overeating, alcohol, and tobacco are etiologic factors. The hyperirritable nervous man is more prone to the disease than the phlegmatic type. Angina pectoris coronary thrombosis are almost unknown among the Chinese. Syphilis attacks the aorta and leaves the coronaries alone. At times in the presence of syphilitic aortitis, the coronaries may become narrowed or obstructed at their mouths and infarcts may result.

The commonest etiologic factor is arteriosclerosis. Elevated blood pressure is the most frequent abnormal condition found. Four to six males suffer from the disease to one female. Emboli may be swept into the coronaries and occlude them. Other factors are diabetes mellitus and acute infections. The symptoms of the patient whose electrocardiograph I have shown began after the extraction of some teeth. A number of writers have remarked upon the relationship between influenza and coronary thrombosis.

Symptoms and Signs

The symptoms in coronary thrombosis vary with the size and location of the affected arteries. The clinical signs may vary from no discomfort whatever to sudden death. The blood pressure falls rapidly. Dyspnoea is so important that we should always consider thrombosis in acute attacks. Cyanosis is frequent. In coronary occlusion the attack is more difficult to terminate than in angina. Rest and the nitrites which alleviate simple attacks of angina have little effect on occlusion. Unlike angina many attacks of thrombosis come on while the patient is at rest. Either after effort or while asleep the substernal, retrosternal or epigastric pain may develop. It is unaffected by vaso-dilators and does not respond to morphine in ordinary doses.

After dyspnea as a symptom in cases of thrombosis, comes pain, then vomiting, collapse and unconsciousness. The pain is often excruciating, sometimes in the upper abdomen and sometimes in the left precordium. How much of the abdominal pain is referred from the heart and how much is due to sudden engorgement of the liver with stretching of Glisson's capsule is not certainly known. The closing of the artery is like the blow of an assailant. He lies there prostrated and shocked. The features are ashen grey and beads of perspiration are everywhere on his body. Nausea and vomiting are absent only in the mildest cases. There is a sudden fall in blood pressure.

Fibrillation may occur. Moisture at the lung bases and a swollen tender liver are signs of circulatory failure. The heart sounds are faint and of poor quality. The muscular element of the sound is lost and first sound is almost inaudible. Struggling against overwhelming odds the crippled heart is forced not only to maintain its own integrity but also to provide an adequate circulation for life to go on. The heart sounds at the apex are the first to be lost and when the basal sounds are affected it is usually the aortic which suffers most. In such cases only one heart sound can be identified, this being maximum over the pulmonic valvular area. Heart sound failure is one of the pathognomonic signs of coronary thrombosis.

There is fever and leukocytosis after twenty-four hours, as in my two recent cases, and evidence of a plastic pericarditis. The friction rub is pathognomonic, and in any case of pericarditis we should think of possible coronary thrombosis. The friction rub is often heard only over a limited portion of the precordium and the intensity varies from hour to hour. Moreover, if the area of cardiac infarction is limited to the interventricular wall or to the inferior or to the posterior portion of the ventricular wall or if it extends to the inner rather than to the pericardial surface of the heart, no friction rub may be detectable.

The electrocardiographic changes are important. Following coronary occlusion there is a fusion of the R and T waves. The T

wave takes off from the descending limb of the R wave before the R wave has returned to the base line. There may also be changes in the direction of the T waves. Negative T waves, low voltage in all leads, and the characteristic S-T interval with upward convexity of the T wave, as shown by Pardee, is of diagnostic importance.

Differential Diagnosis

Pain, shock and circulatory failure are the cardinal signs of coronary occlusion. The differential diagnosis should be made from other heart conditions and from the surgical diseases of the abdomen.

In angina pectoris the onset follows exertion, the pain lasts only for a short while and is relieved by the nitrites. There is no shock, no fall in blood pressure and no evidence of circulatory failure.

Neuritis of the chest wall and intercostal neuralgia must be differentiated from coronary disease for we should not attribute every chest pain to angina or coronary thrombosis. It is the consensus of opinion that pain arising in the digestive tract does not radiate into the arms, though it may be substernal or epigastric.

Occlusion of a mesenteric vessel particularly when it occurs in a patient with heart disease may suggest coronary thrombosis, but this will soon be followed by signs of peritoneal irritation. Occlusion of a splenic vessel as occurs in sub-acute bacterial endocarditis may suggest coronary occlusion but usually the pain is definitely localized in the left side of the abdomen. Likewise occlusion of a renal artery by a mural thrombosis has raised the question of a coronary occlusion.

Coronary thrombosis must be differentiated from a ruptured peptic ulcer, acute pancreatitis, acute cholecystitis, and acute intestinal obstruction. A roentgen ray examination may help diagnose a ruptured peptic ulcer by showing a bubble of air high under the diaphragm. Tenderness over the epigastrium and muscular rigidity are rarely present following coronary thrombosis. The electrocardiogram is of great value in diagnosing coronary disease.

We must remember that coronary disease is more frequent in men while gallbladder disease is more common in women. The pain

in gallstone colic is referred to the back and beneath the right shoulder and not to the arms. Above the diaphragm the differential diagnosis must be made from pleurisy, pneumonia, acute cardiac dilatation, pulmonary embolism, diaphragmatic hernia, and cardiac asthma.

Prognosis

Herrick has arranged these cases into four groups.

1. Those cases in which death is sudden and probably painless. To this group belong a great many who are found dead in bed.

2. Those with severe anginal pain and profound shock with death in a few minutes to several hours.

3. Mild, non-fatal cases with slight anginal attacks without the ordinary causes.

4. Those with severe symptoms who do not succumb at once but live for days or weeks and eventually recover with impaired myocardial function or die later from congestive heart failure.

From 30 to 50 per cent of patients die during the attack or in the first few weeks. One third are in fair health at the end of two years and about seven per cent are healthy at the end of five years.

Treatment

The prophylactic treatment of coronary disease is the prevention of the underlying contributing factors, as worry, stress, arteriosclerosis, hypertension, and diabetes. Tobacco and alcohol may be important factors in certain cases. There is a hereditary tendency to this disease and cases developing in early life are of this type. Individuals with a constitutional predisposition should be warned to be moderate in all activities. The important factor in treatment is an early diagnosis.

After the occlusion has occurred rest in bed for a minimum of several weeks is essential. The area of infarct must be allowed to heal. Visitors should be forbidden and the patient should be spared the effort of feeding or turning himself in bed for two or three weeks.

Morphine should be given in sufficient doses to give relief from pain without endangering life. It not only gives relief from the pain but produces mental and physical rest. Small doses of luminal after a few days may help, but allonal and amytal depress

the patient. The nitrites used in angina do not relieve the pain in thrombosis. They are useless and may do harm, unless at some time the blood pressure needs modification.

Soon after the beginning of the attack shock develops. The relief of pain and the application of external heat may at first be all that is needed. Should the cardiac sounds become feeble, arrhythmic and the respirations shallow, the administration of small doses of caffeine every two hours will stimulate the heart beat and vital centers. Large doses of caffeine increase the tendency to heart failure. It is better not to give large amounts of fluid by vein, but 500 to 1,000 cc. of normal saline solution with five per cent glucose may be given by rectum in 24 hours. The heart sounds generally improve after the administration of glucose. The diet should be soft or liquid. Digitalis has been under fire because of its stimulant action. Given cautiously and judiciously it does not seem to do harm. Levine calculates the dose for intravenous use on the basis of $\frac{1}{4}$ to $\frac{1}{3}$ of a minim per pound of body weight and may be repeated every two or three hours for three or four doses. Subsequent dosage depends on the condition of the patient. However, caution is necessary in using digitalis soon after thrombosis occurs.

When heart failure ensues digitalis certainly is indicated and may be stopped as soon as compensation is established. As digitalis increases the force of the heart contraction and the intraventricular pressure some clinicians do not advise giving it. Digitalis should be used if marked arrhythmia develops.

As a coronary dilator theobromine, euphyllin or metaphyllin are the drugs of choice. When combined with barbital or phenobarbital they are especially helpful. They may be given over a long period without harm. Oxygen therapy is of value in the relief of dyspnoea and cyanosis. If much sclerosis is present small doses of the iodides are indicated. The patient's morale must be kept up. They are often introspective, antisymphathone, a vaso-dilator tissue extract, is said to be of value in angina. A large clinical trial should be given it to determine its real value.

If the patient survives the early onslaught he must return to restricted work with caution. The amount of exercise allowed may be determined by the rate of the heart, the quality of the sounds, and the symptoms present. The patient must rest lying down, a definite number of hours each day. Definite rules must be laid down. These patients must develop a new philosophy of life, and resign themselves to the care of a physician for the remainder of their lives.

The fundamental procedure in all surgical measures has been the interruption of the afferent nerve impulses going from the heart to the central nervous system. There is complete relief of pain in about 40 per cent of cases and partial relief in 27 per cent of cases. There are post operative complications in 51 per cent of cases. Even if the pain is relieved there is no apparent influence on the course of the disease and the patient is left no sign of warning that he may be overdoing himself.

DISCUSSION ON PAPER OF DR. BRODERICK

Dr. J. A. Fountain, Macon, There is very little that I can add without repetition. One thing I wish to speak of is the electrocardiogram. Barnes, of the Mayo Clinic, has called our attention to the fact that changes in the coronary arteries cause definite changes in the electrocardiogram. He gives the electrocardiographic changes one to fourteen days after infarction of the left ventricle, anterior portion. The changes are an elevated R-T segment in leads I and II, or a rounded, convex R-T segment in leads I and II, or a depressed R-T segment in lead III. An inverted T-wave in leads I and II, rounded or convex R-T segment in leads I and II, or a high, sharply spiked T-wave in lead II are important findings. In the post-basal portion of the left ventricle and adjacent interventricular septum the electrocardiographic changes are elevated R-T segments in leads II and III. Rounded, convex, sloping R-T segments in lead III and depressed R-T segments in lead I are also common. After fourteen days an inverted T-wave may be found in leads II and III and a sharply peaked T-wave in lead I.

Another thing that Dr. Broderick did not bring out quite clearly is that the symptoms which are so classical are due to two things, an anastomosis of the coronary arteries and the time interval in the sclerosing and narrowing of the artery or forming of the thrombus. This covers the various symptoms he so well described.

The American Heart Association sends free to general practitioners papers upon cardiovascular subjects each month written by the very best men in the coun-

try. I would advise any man who is interested in this subject to send for them.

Dr. C. C. Aven, Atlanta: Dr. Broderick has covered most of the phases of the subject but there is one thing I wish to emphasize. He said that very little could be done for patients with coronary occlusion, but if the patients are kept absolutely quiet for eight to ten weeks there will be a great deal of repair in the myocardium.

Another thing I wish to emphasize is the interpretation of the electrocardiogram. It is a somewhat new instrument and there is much disagreement upon the interpretation of the findings.

As to the differential diagnosis of coronary disease and cholecystitis, I will recite three cases that exhibited symptoms which were misleading.

Case I.—Mrs. B. D., aged 39, had syphilis which was treated 15 years ago. The Wassermann reaction has been negative for the past five years. Recently she came to my office complaining of substernal discomfort with dyspnea on exertion. Her blood pressure was 100-80. She did not sleep well that night, having to be propped up in bed. She had the classical symptoms of coronary occlusion, the pallor and cyanosis being profound. The attack was not relieved by vaso-dilators but required large doses of opiates. She was kept in bed for eight weeks with relief of her cardiac symptoms but at the present time she has considerable disturbance with digestion. Oral administration of dye showed a gallbladder about two and one half times its normal size. This is a case of both gallbladder and coronary disease.

Case II.—Mr. J. E. M., aged 38, was admitted to Grady Hospital with a diagnosis of coronary disease. An electrocardiogram proved the condition not to be coronary disease. We immediately began to investigate for the cause of his substernal pain, referred to the left shoulder and arm, profound shock and a marked variation in blood pressure. He did not yield to rest and appropriate treatment. Roentgenograms showed three large stones in the gallbladder. He was given a general anesthetic of ether and ethylene and the gallbladder was removed. He has not had a single attack since. This was a case of definite gallbladder disease with symptoms simulating coronary disease.

Case III.—Mr. I. I., aged 49, an emotional Jew, in November, 1931, had an attack of coronary occlusion, with all of the classical symptoms, which was proved by electrocardiogram. In May, 1931, he had a severe attack of pain which he claimed was not the same type of pain. He had a roentgenogram for gallbladder disease with the result that there was no concentration of dye but a large number of stones were found. Here was a coincidence of both diseases.

Thayer lays stress on his belief that "if the knife is the most valuable implement of the surgeon, the tongue is the most precious instrument of the physician. There are still relatively few specifics in medicine. It is by our counsel, by our moral influence, by our powers of explanation, of illustration, or reasoning that we induce the patient to realize that which

he must do to preserve himself and others from disaster. It is by the tongue that we achieve our chief results. There are few maladies which can be more profoundly influenced by the wise counsel of a judicious physician."

Dr. E. A. Bancker, Jr., Atlanta: I have enjoyed this fine paper by Dr. Broderick. Several points mentioned by the author are worthy of emphasis. The past history of hypertension in the patient or in the patient's parents or grandparents should make you suspect arteriosclerosis as a family heritage. Coronary thrombosis is very common in members of arteriosclerotic families.

The appearance of the patient with this disease is that of shock with pain. If you do not sit down by the bed and observe the patient closely it is difficult to distinguish coronary thrombosis from an acute surgical condition of the abdomen. Persistent pain, pallor or cyanosis, sighing respiration, hypotension and a degree or two of fever should lead you to institute treatment at once.

All patients with coronary thrombosis do not suffer pain but most of them suffer palpitation, dyspnea and a fear of impending death. When cardiac infarction occurs a double or single friction rub may be heard which tends to disappear at intervals during the course of the convalescence.

Electrocardiography is still in its infancy but in this disease it records with unfailing accuracy the cardiac events. Dr. Broderick has mentioned the significant T-wave changes. I should like to call attention to the deep, negative Q-wave in lead three which has been interpreted by several recent authors as being indicative of a well established coronary occlusion.

It was found by physicians treating large numbers of persons with diabetes mellitus and coronary thrombosis that their patients responded well to intravenous glucose injections. This suggested the possibility that most patients with coronary thrombosis might be benefited by glucose injections which raise the blood pressure and furnish ready nourishment to the heart muscle. One New York hospital routinely gives the patient 100 cc. of 50 per cent glucose solution as soon as the diagnosis of coronary thrombosis has been established. In patients with diabetes mellitus or with a systolic blood pressure below 100, I believe glucose injections to be of value.

Dr. Edgar Shanks, Atlanta: A good deal has been said in regard to this subject, but I believe there are certain cases of coronary thrombosis of the small vessels, what we call the twig group, which do not show definite electrocardiographic changes. However, in these cases we get the classical symptoms of pain, drop in blood pressure, fever and leukocytosis.

Electrocardiograms should be repeated every few days when practicable. In addition to the routine electrocardiogram it is well to try lead IV as mentioned by Wolferth and Wood. These men believe that a diagnosis of coronary occlusion may be made earlier by using their method.

We should all be very careful in giving a prog-

nosis when we are dealing with any type of heart disease, and we should remember that we may find cases of coronary thrombosis in young individuals, sometimes as early as thirty years of age.

Dr. J. A. Redfearn, Albany: One point I wish to emphasize which Dr. Broderick brought out is that rest is the first and greatest essential. Fortunately, any of us can prescribe rest. Make no compromise with your patient on the question of rest because coronary occlusion means that there has been a block of a branch or a portion of the coronary artery and the myocardium is damaged. If the area is very large the muscular part of the heart supplied by that portion is dead and it will liquefy in three to five weeks and form scar tissue.

Therefore, do not allow your patient to get up and walk to the bathroom for there is great danger of a blow-out. The condition of the myocardium may be compared to the stone bruises you have seen on automobile tires which you know better than to ride on for fear of a blow-out. The myocardium of your patient may rupture if he is not careful about his rest.

Dr. S. T. R. Revell, Louisville: I am an iconoclast and with advancing years it becomes increasingly difficult to adopt new concepts, therefore, I shall probably continue in the same channels to the end of my journey. The essayist has emphasized, and those who have discussed the paper have emphasized only one thing in the treatment of cardiac thrombosis aside from rest, and that is glucose. I know of no other therapeutic agent that so uniformly raises the blood pressure as does glucose. This principle has been carefully worked out in the laboratory and the results of the studies published, I think, in the Archives of Internal Medicine.

As more than fifty per cent of these cases have an elevation of blood pressure above the normal, it would seem that the best interest of these patients would be served by directing our efforts through measures that produce quietude of the heart and lowering of the blood pressure. This effect is typified by the action of morphia, as was brought out by the essayist. A weaker but somewhat similar action is produced by theophyllin, particularly ethylenediamine-theophyllin. Of course when the myocardium fails, as evidenced by cardiac dilatation, fall in the blood pressure and other signs of failure develop, glucose then becomes the therapeutic agent of choice.

Dr. J. Reid Broderick, Savannah, (closing): I wish to thank the gentlemen for their discussion and in the time allotted for closing I will show you some slides and a motion picture of an electrocardiogram taken during an attack of angina pectoris with a fatal termination.

The American College of Surgeons will meet in Montreal, Canada, February 6-10, 1933. Windsor Hotel will be headquarters.

THE EFFECT OF PREVIOUS LIGATION OF THE COMMON DUCT ON RESTORATION OF THE LIVER FOLLOWING PARTIAL HEPATECTOMY*

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During recent years there has been a marked revival of interest in problems relating to the liver due in great measure to the work of Mann and his associates. The experiments on total hepatectomy and those on the gallbladder and biliary tract have thrown light upon many disputed points in the physiology of the bile pigments and in the metabolic processes of the liver. These have given firmer basis for the study of jaundice and general metabolic processes in disturbances of the liver. Further studies on the normal hepatic parenchyma have been carried out by Fishback, who removed as much as three-fourths of the liver without marked clinical effect and found that regeneration was practically complete. These studies suggested similar investigation in the jaundiced animal following ligation of the common duct and such is the purpose of this paper. A further purpose is the description of the microscopic findings in the parenchyma at stated intervals following ligation and the degree of jaundice at these periods.

Review of the Literature.

The previous work may be considered conveniently under two headings, namely, those concerning (1) ligation of the common duct in relation to biliary cirrhosis, and (2) regeneration (or restoration) of the liver.

1. *Ligation of the common duct in relation to biliary cirrhosis:* The early history of experimental ligation of the common duct in the study of problems of the liver is of interest. The first mention I find is by William Saunders in 1795, when he ligated the common duct of a dog. He killed the animal after two hours and with white paper examined the blood for bile pigments. This is the beginning of our present study of bilirubin. Tiedemann and Gmelin in 1823, after the same procedure, used nitric acid in making the first chemical test for bilirubin in

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NOTE:—The bibliography will appear in the author's reprints.

blood. In the same year Brodie noted the re-establishment of the biliary tract after ligation, if the duct was not cut. Thus the way was paved for more extensive study of the parenchyma of the liver and of bile pigments in the blood in abnormal conditions. Simon in 1828 ligated the common duct, the hepatic artery and portal vein separately, in an attempt to find which of the two blood supplies of the liver furnished the necessary constituents for the formation of bile pigments. He concluded that the hepatic artery had no influence on the formation of bile, that the portal vein supplied the necessary elements.

After experiments by Litten, in 1878, Popoff in 1880, Belloussow in 1881, and others, Harley and Barrett in 1901, with rigid aseptic technic ligated the common duct or one of its branches and allowed the animal to live for a considerable period of time.

2. *Regeneration (or restoration) of the liver:* Restoration of the liver has been studied from both the experimental and pathologic viewpoints. The experimental work involved trauma, poisoning and resection of portions of the liver. The first successful partial hepatectomy, so far as I have been able to learn (although there was no record of evidence of restoration) was done, according to Tizzoni, in 1680 by Zambecarri, who resected one lobe in each of two dogs. Apparently no further work was done along this line for two centuries, when other Italians re-opened the subject. Petrona, in 1881, thought that regeneration took place in the liver from pre-existing bile ducts as well as from parenchymal cells; he also noted an increase in fibrous tissue in the reparative process in the operative field.

From experimental studies in 1886, Podwysozki gave a very accurate and complete description of the regenerative processes following injury or partial removal of the liver in white rats, cats, guinea pigs and rabbits. Other notable research was done, following Podwysozki, by Ponfick and von Meister.

In 1921 Mann, in discussing the effects of complete removal of the liver stated that he had removed practically 70 per cent, which was followed by almost complete regeneration within the course of three months.

Fishback, in 1927, completed an investigation of experimental regeneration of the liver. He concluded that regeneration of the hepatic lobules or their restoration, occurs usually within six weeks after portions of the liver have been removed. What occurs is a restoration of the functional units of the liver for some cause so far unknown. It is not correct to call it a functional hypertrophy in the light of our present knowledge of what

constitutes normal hepatic function or the normal demands of the organism on the liver. Mitotic figures are rare. Binucleate cells are very common, more so than in the normal liver. Frequently cells are found with nuclei showing a definite constriction in the center. Undoubtedly both processes occur in this rapid restorative operation. The evidence, owing to the so rapid multiplication of cells, points to direct cell division, if only because of the inability to discover a sufficient number of mitotic figures by which this tremendous regeneration might have taken place. The bile duct epithelium participates in the process of restoration in a double role. First, it builds a new drainage system into the re-created hepatic tissue, by budding forth and sending out radial offshoots, and secondly, it assists in the reconstruction of the hepatic parenchyma itself, through the transition of some of these new cells at the tip of the budding bile ducts into functioning hepatic parenchyma. In this region there is a transition type of cell, which might have arisen from either epithelium of bile ducts, or parenchymatous cells; however it is in the region of the sprouting bile ducts. And also the bile duct epithelium would be the one more likely to differentiate in times of need since it is less highly specialized than the liver cell, and consequently has the power of regenerating rapidly and differentiating in accord with some primitive complex when the necessity arises.

In addition to the experimental work outlined above, restoration of the liver has also been much studied in post-mortem examination of the human liver. According to Milne, the possibility of regeneration in this organ was suggested by Cruveilhier in 1833 and by Andral in 1834. In clinical and pathologic studies of this subject, evidence of regeneration has been described following gross destruction of the parenchyma due to such causes as trauma, cirrhosis, acute yellow atrophy and chloroform poisoning. However, there is no unanimity as to the process of restoration.

Method of Experimentation

All operations were performed under ether anesthesia with rigid aseptic technic. The common duct was exposed by traction on the stomach and duodenum and after being doubly ligated with linen was cut about 1 cm. from its entrance into the duodenum; the duodenal end was not ligated. The gallbladder was removed because it has been shown by Mann and Bollman that in such experiments jaundice develops more rapidly after its removal and because the distended organ would have complicated further operative

procedures. In order to have a specimen of normal liver for comparison, a triangular wedge was excised from the border of the right central lobe, and this wound was closed with a mattress suture. The weight of the liver was estimated at this time from the size of the liver, the size and weight of the dog and from the table of liver weights in normal dogs as given by Fishback. After operation the animal was placed on a diet of equal parts of milk and syrup, which has been found in this laboratory to be particularly valuable in maintaining the condition of jaundiced animals with obstruction to the common bile duct. At a second operation, 7 to 52 days (usually about 30 days) later, partial hepatectomy was done, according to the technic recently described by Fishback. The resected lobes were weighed and the weight of the remaining portion was estimated. The appearance of the organ, the degree of dilatation of the common duct and hepatic duct, and the degree of jaundice of both sclerotics and viscera were noted at this time. The animal was again placed on a diet of milk and syrup until death or until it was thought best to terminate the experiment.

At necropsy the abdominal and thoracic viscera were carefully examined. The liver was weighed as a whole and by individual lobes to determine any increase in size. Ligation of the duct was verified and the duodenum opened to exclude possibility of re-establishment of bile drainage. Tissue from the parts of the liver removed at the two operations and at postmortem was immediately fixed and prepared by the usual technic.

Results

Experiments were done according to the technic described upon a sufficient number of dogs. Of this number, in order to exclude postmortem changes, only those animals on which necropsy was performed within four hours after death will be considered.

The length of life following ligation of the common duct varied a great deal as dogs stand this operation poorly and when jaundiced are very susceptible to infection. The usual length of life, when not shortened by infection, is about three months following ligation of the common duct alone. Death in animals that were not killed was most often due to rupture of a duodenal ulcer or distended common duct with resulting peritonitis. After ligation of the common duct, weight and strength are rapidly lost and the appetite becomes poor and fastidious, this state is most marked in the first seven to ten days. After this, strength and appetite improve in a measure, and at the end of four to six weeks the animal seems to be in fair

general condition, although it continues to lose weight and is still weak. Jaundice is perceptible in the sclera fourteen to sixteen hours after operation as Mann and Bollman have already pointed out. This increases rapidly and probably reaches its maximum after thirty to forty days. During this period the sclera, skin and mucous membranes become markedly yellow and the viscera and other tissues including the cartilage yellowish to yellowish-green. After this time jaundice remains stationary for several weeks. Ascites is variable. In a few animals a large amount of clear fluid was found in the abdomen five to ten days after ligation of the common duct, but in general it may be stated that ascites is usual, though not marked, during fifty-two days.

From seven to fifty-two days after ligation the gross appearance of the liver presents little change. It is greenish to brownish-black and appears distended and engorged, the individual lobules are prominent. The external surface of the organ is smooth and glistening and there are frequently some adhesions between the duodenum and the under surface of the right central lobe. The common duct and hepatic duct are usually dilated to from four to six times their normal caliber and their walls are thin and friable. This distention of the liver and ducts begins within five to seven days and has been observed at the time of the second operation even when this has been performed late in the second month. The bile in the duct is usually thin, watery and greenish-brown, though rarely white bile is seen. The microscopic picture consists essentially of a slight increase in connective tissue in the interlobular spaces directly around the dilated bile ducts. This increase does not extend around the radicles of the portal vein of hepatic artery or into the lobule itself. The intrahepatic ducts are usually about twice their normal size but the cells lining them appear normal. In the interlobular spaces and throughout the parenchyma are seen numerous large and small areas of new bile ducts which seem to form whorls of new tissue throughout the organ and around these there is a slight increase in connective tissue. The parenchymal cells show little or no atrophy or other change, but these bordering the area of new bile ducts are usually more deeply stained and appear to be in good condition. At times two or more nuclei are seen in these cells but as a general rule they look normal. Bile pigment is scattered irregularly throughout the organ, but apparently in the canaliculi rather than in the cells. Except for the presence of the bile pigment, the slight increase in connective tis-

sue around the ducts and the areas of new bile ducts, the picture is practically normal as shown in the photograph (Fig. 2a-b). In no cases was there evidence of restoration by mitotic figures and the formation of the new cells before partial hepatectomy was performed.

Partial hepatectomy was performed 5 to 52 days after ligation of the common duct, but the average interval between the two operations was about 30 days. Hemorrhage in the jaundiced dog seems to be a negligible factor as the lobes of the liver were resected while the animal was deeply jaundiced and in only two instances could death be ascribed to this cause. In these it was probably due to a technical error in tying the large vessels. On the other hand, abscess of the liver at the point where the distended ducts are tied after partial resection is an important factor in the mortality. When partial hepatectomy is done the immediate clinical effect is slight. Jaundice increases a little for a short time and then begins gradually to decrease so that in the latter part of the fifth month after ligation the sclera is almost clear and the tissues retain but a slight yellowish tinge. With the decrease of jaundice the animal seems actually to improve. One hundred ten days is the longest period that any dog has survived ligation of the common duct alone in this laboratory and this animal grew steadily worse after the operation and before death its abdomen was greatly distended with ascites. In contrast to this in the present series of experiments in which both operations were done, several animals were gaining weight, showed little jaundice and seemed to be in excellent health at the end of six months, when they were killed. Only a small amount of bile-tinged fluid was found in their abdominal cavities. In no case was ascites marked after partial hepatectomy.

The microscopic appearance of the liver several months after resection of part of it, is somewhat less engorged than after ligation of the duct alone, and perhaps brownish-red rather than greenish-black, but it does not differ strikingly from that of the earlier stages after simple ligation. No increase in size or weight of the obstructed uninfected organ was found 3 to 110 days after partial hepatectomy in this series, which fact is in strong contrast to the almost complete restoration of the unobstructed liver so often demonstrated previously. In the fifth month, or more than 120 days after partial hepatectomy, the caliber of the duct is about half of what it was in the second month, and their walls are thickened rather than thin transparent as in the earliest stages of distention.

The character of the bile in the ducts is similar to that found earlier, namely, thin, watery and greenish-brown, though occasionally white. Microscopically in the majority of cases from 4 to 30 days after partial hepatectomy the sinusoids are dilated and the parenchymal cells appear somewhat swollen, but essentially normal. The picture is otherwise that of the liver at about the same interval following ligation of the common duct. In others there is a moderate proliferation of parenchymal cells with a few mitotic figures in various stages. In the periphery of the lobule and especially around the whorls of the new bile ducts, there are many areas of cells in which I consider mitosis is already complete and new cells have been formed. The typical new cell is smaller than the normal parenchymal one and the protoplasm is stained a dark pink with hematoxylin and eosin. Its nucleus is elliptical or oval, very darkly stained and smaller than normal, nor nucleolus is seen. Later there is a marked increase in the connective tissue around the bile ducts and the absence of bile pigment scattered through the organ.

Infection plays an important role in the jaundiced dog, and when it develops after either ligation of the common duct or partial hepatectomy the animal does not survive more than a few weeks.

The formation of new bile ducts has been observed by practically all the previous writers as well as in these experiments. This may be due to an attempt on the part of the parenchyma to accommodate the increased amount of bile, but more probably the new bile ducts serve to provide the source of new parenchymal cells.

The pathogenesis of changes in the liver following ligation of the common duct may be interpreted somewhat as follows: the ligation causes a damming up of bile in the biliary tree due to the continued secretion of the parenchymatous cells. This results in dilatation successively of the common duct, and its larger branches and the interlobular ducts and finally dilatation of the bile canaliculi near their entrance into the interlobular ducts. Thus stasis of the bile is found in the periphery of the lobule. The resistance within the canaliculus may prevent the dilatation continuing to the center of the lobule. In the peripheral zone possibly the cells bordering the canaliculi continue for a time to secrete bile, which they cannot excrete on account of the pressure of the bile in the distended canaliculus near its juncture with the duct, in which case the amount of bile within these cells will be raised. Perhaps more probably by this stage these cells have ceased to

secrete bile, and then by physical diffusion bile will be forced back into them. Since McIndoe has shown that the canaliculi are essentially only interstices between the parenchymatous cells and have no independent lining, it is unnecessary to assume a rupture of the canaliculus or anything else to understand how the bile comes in contact with the cells. In any event the cells forming the canaliculi nearest the bile ducts will be subjected to the toxic effect of the bile. Since the peripheral cells have a better blood supply than those at the center of the lobule a pre-existing lessened resistance on the part of these cells cannot be assumed and therefore, unless the greater amount of glycogen in the central cells renders them more resistant, the injury sustained by the peripheral cells can perhaps best be explained by the irritant action of the bile. The formation of new bile ducts and connective tissue has been outlined above.

MacCallum and others have shown that restoration or regeneration, as he prefers to call it, occurs in the human liver in cases of biliary cirrhosis, and Canalis and others have demonstrated the same process in experimental work on rodents following ligation of the common duct. In my work on dogs no evidence of this process has been found after ligation of the common duct, prior to partial hepatectomy. The explanation probably lies in the comparatively slight damage caused to the liver by ligation of the common duct over periods of from one to four and one-half months, but as already noted, dogs become weak and emaciated after ligation of the common duct, an operation they stand poorly. However, after resection of the obstructed liver there is hardly any evidence of restoration. This is in striking contrast to the almost perfect restoration that has been so often demonstrated experimentally for the non obstructed liver.

In the animals in which partial hepatectomy was performed at varying intervals following ligation of the common duct, the results are variable. In practically all cases, the sinusoids became engorged first, the cells appeared somewhat swollen and in many cells a clumping of the chromatin granules is found. These findings indicate the early stages of proliferation, but in the majority of cases the process did not go on to true mitosis and formation of new parenchymatous cells. In those in which mitotic figures and new parenchymatous cells were found, no true increase in size or weight of the liver was observed. These facts lead to the theory that restoration, following partial hepatectomy is definitely but not absolutely inhibited in the obstructed organ. Although there is evidence of mitosis in some cases and

the formation of some new cells, I do not believe that this process would continue to any appreciable extent as long as the obstruction is present. That restoration may be present at the same time as atrophy and necrosis of the cells in the peripheral zone of the lobule in the liver, part of which has been resected following ligation of the common duct is evident. I believe, however, that the destructive action always predominates.

Animals in which the common duct has been ligated and partial hepatectomy subsequently done have lived longer than any in which the common duct has been ligated without further operative procedures have lived in this laboratory. To explain this observation, Mann has suggested that the lessened amount of hepatic parenchyma probably produces less bile salts and, perhaps, therefore, less of this toxic bile constituent is reabsorbed. This theory may explain the foregoing observation, but a sufficient number of experiments has not been done to establish it.

Summary

A series of experiments were performed on dogs to determine if the liver would be restored after partial removal, if jaundice was produced by previous obstruction to the outflow of bile. The routine procedures were as follows:

1. The common bile duct was ligated and gallbladder removed.
2. At various intervals, after the production of biliary obstruction, two or more lobes of liver were removed. It was found that partial removal of the liver was not followed by the remarkable restoration that occurs in the normal liver.

DISCUSSION ON PAPER OF DOCTOR GAY

Dr. L. Minor Blackford, Atlanta: Doctor Gay devoted about a year of full time work to this research which he has given us in abstract. I wish very much that conditions were such in Georgia that some philanthropist would enable ambitious young men to carry on such fundamental research, for, as I see it, this is needed more than anything else in this state.

For a general group the clinical significance of this paper, I believe, is very great. Doctor Gay has shown that on a diet of milk and carbohydrates these dogs got along very well in spite of profound jaundice. That is something we can all apply whenever we see a jaundiced patient. We can put him on a diet of milk, jams, sugar and a small amount of protein. If it is a negro patient just tell him he must not eat any salt meat. The question as to why these patients get along better on the diet of milk has puzzled me a great deal. It has been shown that a diet with carbohydrate was valuable and the research men began using milk because it is an easily assimilated food.

Workers at Vanderbilt University found that if dogs

got enough glucose and calcium before they received lethal doses of liver poisons they usually survived, and that, if the dogs had been on an ordinary diet, their lives could be saved by the intravenous administration of dextrose and calcium.

In New Orleans last week I attempted to find out what the role of calcium is in relation to the liver. I was not successful in learning more than the present theory is that it has something to do with neutralizing guanidin and similar substances that result from the derangement of hepatic metabolism.

Before leaving the subject of calcium in relation to the liver, for some years the intravenous use of a calcium salt has been advised in the preparation of jaundiced patients for operation. Now many believe this measure is not as satisfactory in combating hemorrhage as repeated small transfusions.

Dr. Jas. E. Paullin, Atlanta: The excellent paper of Doctor Gay detailing his investigative work concerning the causation of obstructive jaundice is most interesting and furnishes us much food for thought. We hope that Doctor Gay will continue his studies on jaundice and help to unravel many of the intricate problems of liver pathology, about which we are still ignorant.

The occurrence of bile pigment in the blood stream in abnormal amounts is usually considered as being due to one of three causes: First—a result of excessive destruction of red blood cells and the production from this of an over abundance of bilirubin. Such a condition is found in familial hemolytic jaundice. Second—jaundice may arise as a result of some disease of the polygonal cells of the liver which prevents normal excretion of bilirubin. Such a condition is observed in acute yellow atrophy of the liver. Third—jaundice resulting from obstruction, either intrinsic or extrinsic. It is with the latter type of jaundice that Doctor Gay has dealt.

In this connection it is of interest to observe that many years ago we were led to believe that it was possible to differentiate various types of jaundice (obstructive or non-obstructive) by a simple chemical test of the blood serum. The reaction utilized for this purpose was described by van den Bergh. During the past several years, it has been pretty definitely demonstrated that it is impossible to tell from the type of reaction obtained with the van den Bergh test whether the jaundice is due to obstruction of the bile ducts or some other cause. The various phases of the reaction depend on the amount of bilirubin in the blood stream and is in no way related to whether this constituent accumulates in the blood as a result of obstruction or because of disease of the liver cells. Of greatest help in differentiating the various types of jaundice is a careful history of its development elicited from the patient.

When jaundice has existed for any length of time it is interesting to see the pathological changes of destruction and repair which occur in the liver.

Dr. J. Gaston Gay, Atlanta, (closing): In this experimental work as a rule many lines come out

afterward that are of considerable interest. Many of these dogs lived for a period of over a year, and during that time it was found that by feeding these dogs on meat alone we could develop an ascites, and by putting them back on a diet of milk and syrup the ascites would disappear. The many things of that type that developed have all been very interesting to me.

PERORAL ENDOSCOPY IN RELATION TO GENERAL MEDICINE*

B. MCH. CLINE, M.D.

Atlanta

Medicine of today is too vast for any one man to master, but the general physician should keep himself informed as to what aid he may expect from the specialist. This is particularly true in regard to direct inspection of the body through its natural orifices.

This specialty has been developed within the lifetime of many of us present today. We are all familiar with the value of cystoscopy, though not many of us are capable of making a cystoscopic examination. Passing a proctoscope has also recently become fashionable; one of our number has even gone so far as to say it should be done in the routine examination of patients. Endoscopy of the tracheo-bronchial tree and of the esophagus is still thought by many chiefly in connection with the removal of foreign bodies. This operation was made practical when Chevalier Jackson devised the distally-lighted bronchoscope a quarter of a century ago.

Jackson's invention led to the perfection of technic. The surgeon was enabled to devote his undivided attention to the examination and treatment of the patient when he had trained a team of assistants. With the development of skill on the part of the surgeon and of efficient assistants, general anesthesia was soon abandoned. Thus the risk of the operation was virtually eliminated. General anesthesia carries in itself some risk, especially if pneumonia is developing. It also involves the risk of exciting vomiting with resultant aspiration pneumonia. Moreover, general anesthesia is undesirable because it alters the normal color of the mucous membranes and causes such relaxation in case of

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esophageal spasm that the diagnosis will be missed.

A large measure of the efficiency of Jackson's bronchoscopic clinic, as he readily admits, is due to the personnel of trained assistants and, less important, to the material facilities available. He has in Philadelphia an operating room at all times equipped for whatever emergency may arise. It is the ambition of my life to see a similar clinic in Atlanta.

The perfection of bronchoscopic technic caused forward-looking physicians interested in diagnosis to realize that it provided a safe mode to explore the lungs and esophagus. The internists soon appreciated the need for the roentgenologist, the bronchoscopist, the pathologist and, sometimes, of the thoracic surgeon. In certain obscure cases, it is only when such specialists work together wholeheartedly that the best interests of the patient can be served.

When I was working under Dr. Jackson in 1918, the removal of foreign bodies constituted 90 per cent of his endoscopic work, but twelve years later, it made up only about 10 per cent. At the meeting of the South-eastern Surgical Congress in Birmingham last March, Dr. Jackson said that 98 per cent of his practice was made up of diagnostic and therapeutic procedures. And this was true although the number of foreign body cases had not diminished.

In cases of persistent hoarseness, first an indirect examination should be made. If there is doubt in the mind of the examiner, this should be followed by direct examination and biopsy. Tuberculosis and syphilis can often be excluded by the general practitioner. Yet tuberculosis, syphilis and cancer may co-exist in one patient. A syphilitic patient with chronic hoarseness which is not due to pressure on the left recurrent laryngeal nerve by an aneurysm should therefore be subjected to biopsy. Cancer can not be excluded by the patient's youth. During six weeks with Dr. Jackson in 1930, I saw several cases of carcinoma of the larynx in persons under 25 years of age. Early diagnosis through biopsy permits laryngofissure. This is a comparatively simple operation which can readily be done under local anesthesia, of-

fers an 85 per cent chance for cure. If diagnosis is not made early, radical operation, with its immediate operative risk and permanent loss of the natural voice box, is necessary in an attempt to save the patient's life. Papillomas and other benign growths occur most often in children. It is true that papillomas are self-limited; it is true that they tend to recur. However, papillomas should be removed for three reasons: they are a source of embarrassment on account of the interference with speech; they endanger health on account of interference with respiration and they endanger life on account of the possibility of malignant change. Benign growths can usually be removed through the laryngoscope, though rarely, if the tumor is large, laryngofissure may be required.

Contra-indications to bronchoscopy are serious heart disease and aneurysm. In foreign body cases there are no contra-indications, because although there may be grave danger on account of other conditions, if the object is left in situ the danger is greater. Therefore, except in emergencies, before a bronchoscope or esophagoscope is passed, the patient should have a careful physical examination, and this should include an x-ray of the chest and a Wassermann test.

Carcinoma of the lung we are learning is not rare. Eighty-seven per cent of primary lung cancers originate in the bronchi. It is platitudinous to say that the cure of cancer requires an early diagnosis. Bronchial cancer, like cancer elsewhere, can readily be diagnosed by biopsy. Jackson and others have successfully removed early endobronchial carcinoma. Even when diagnosis is made late, at least the diagnosis enables the patient to get his affairs in shape. However, recent reports from the Mayo Clinic indicate that palliation may often be obtained from deep x-ray therapy. Moreover, Vinson has reported that in one case diagnosed clinically as bronchial carcinoma, biopsy revealed only inflammatory tissue; a second examination revealed an unsuspected foreign body; after its removal the pulmonary condition cleared up. Though unusual, benign tumors also occur in the lungs.

Bronchiectasis denotes dilatation of the bronchioles and accumulation of infected se-

cretions that the patient is unable to raise. Formerly medication was administered both orally and intravenously and postural drainage employed. These measures did not prove satisfactory. The therapeutic approach today is through the bronchoscope. Occasionally such an examination reveals that bronchiectasis is secondary to an unsuspected foreign body, a benign tumor or bronchial stenosis. If so, it may be readily cured. In advanced cases, aspiration of the cavities by negative pressure seems at this time to offer the best prospect for relief. The sacs may also be washed out and antiseptic solutions instilled. Treatment of this condition is not so spectacular as the removal of foreign bodies; it requires perseverance on the part of the patient as well as on that of the doctor. At first treatments should be given at least twice a week. Bronchoscopic research has demonstrated that the deeper bronchi are practically sterile, but that bacteria are increasingly numerous as the larynx is approached. It seems that if great numbers of virulent bacteria over long periods of time enter the trachea, the ciliated epithelium becomes impaired and is unable to remove them; bronchiectasis results. These bacteria come by force of gravity from infected paranasal sinuses or tonsils. It is therefore most important, particularly in early cases, to clean up all foci of infection in the head.

Pneumonia, according to modern views, usually begins with atelectasis. Atelectasis results when alveolar air distal to a plugged bronchus is absorbed by the blood-stream. Massive collapse, of which so much has been written in the last few years, occurs when a main bronchus is plugged with tenacious and infected mucus. By means of the bronchoscope, this plug may be removed without risk, to relieve the patient of much suffering and distress. If atelectasis persists, lung abscess is only too likely to develop.

Lung abscess is always serious, but the prognosis is much more favorable when a bronchoscopist is called in consultation early. If centrally located, as it usually is, lung abscess can be best treated bronchoscopically. Peripherally, thoractomy is often necessary.

Asthma is another condition that, when other methods fail, may sometimes be mark-

edly benefited if not cured by bronchoscopy. Let me emphasize that, if the internist can find a definite cause, such as allergy, heart failure, or infection of the upper respiratory tract, bronchoscopy is not indicated. Relief of asthma following merely the bronchoscopic aspiration secretions has been reported by Jackson and a number of others. Sometimes a vaccine from cultures so obtained is of help. Asthma can be attributed occasionally to tracheal or bronchial cancer, compression stenosis or even a foreign body. There is a wide open field for research in the bronchoscopic aspect of asthma.

Pulmonary tuberculosis can usually be diagnosed by simple measures, but sometimes it is necessary to examine secretions aspirated through the bronchoscope to establish the diagnosis. In some cases too, the removal of an unsuspected foreign body will result in cure, thus establishing that the original diagnosis was erroneous.

Turning our attention to the esophagus, probably the most frequent lesion is stricture following the ingestion of caustics, especially of lye. Obviously, the education of the laity and the prevention through conspicuously labelling all lye cans "Poison" are most important. Small children of the poorer classes are the most frequent victims of this accident. Too often it is felt that when the oral symptoms begin to clear up, the child is all right again. It is possible, on the contrary, for a stricture to develop or at least to produce the first annoying symptoms years later. Persons who have swallowed a caustic should therefore be under the care and observation of a specialist for a long time.

In case of pain or difficulty in swallowing, esophagoscopy should be done. Carcinoma, hemangioma, or other benign tumors, diverticulum, cardiospasm, or, rarely peptic ulcer of the esophagus, may be discovered. When operation is performed for diverticulum or obstruction at the cardia, the surgeon can look for real assistance from the esophagoscopist.

A foreign body aspirated into the lung may sometimes be coughed up, but usually has to be removed mechanically. Most foreign bodies pass naturally through the esophagus, but often safety pins and small

bones are caught. Little children who gulp their food and who place all manner of things in their mouths, and older persons whose intra-oral sensations are masked by upper plates, are particularly prone to swallow dangerous objects.

SUMMARY

Books have been written about peroral endoscopy, and every day new applications of its methods, new results of research are being published. In these remarks I have tried to impress upon you that in all cases of chronic hoarseness, in all cases of obscure pulmonary disease, and in all cases of pain or difficulty in swallowing, you should consider what benefit your patient might derive from direct inspection of the parts affected. Often a man skilled in such work can not only clear up the diagnosis, but can relieve, if not cure, the patient.

DISCUSSION ON PAPER OF DOCTOR CLINE

Dr. I. W. Irvin, Albany: The paper brought to us by Doctor Cline, I think, is most timely. It certainly has its field and the procedure is just in the beginning.

First, the esophagus. We will take congenital stenosis, which can only be diagnosed by means of the esophagoscope and the roentgenograms. We have papillomas of the esophagus, sarcomas, carcinoma and stricture. We see some strictures of the esophagus due to caustics such as potash and lye in children from the country. Unfortunately, these children are very hard to cure. After you get them well dilated the patients will invariably refuse to come back as long as they can eat. When they get where they cannot swallow anymore your work must all be done over. Then there are goiters pressing on the esophagus, especially the adenomatous type of goiter. Removal of the goiter, of course, will invariably clear this up. Foreign bodies in the esophagus, in my experience, have been principally metal washers, small whistles, safety pins, and I have found on two occasions toy aeroplanes. In one case this was removed and in the other the child succumbed in a few days.

As to bronchoscopy in tuberculosis, personally I have not had much experience with it except in tuberculosis of the larynx. I think we should make a direct and an indirect examination in all cases of hoarseness due to the least exposure. I have always had an x-ray examination as well as a careful examination.

As to asthma, as Doctor Jackson says, every wheeze is not asthma. I believe that asthma eventually will be treated by bronchoscopy. I have in mind a child, aged 2, that I have treated twice for acute spasmodic asthma with the bronchoscope and each time there was a thick mucus in the bronchi. The child was relieved for periods of four months following this treatment. I did not inject any medicine, but used only aspiration.

I have had two cases of lung abscess. One was the patient of a dentist. When he was extracting a tooth the patient aspirated a blood clot. The temperature rose to 104.2 degrees F. I did a bronoscopic examination and aspirated quite a lot of pus. The next day the temperature was down to 99 degrees F. and she refused further aspiration, but recovered.

I have had two cases of obstructive atelectasis, both of them referred from Americus by Doctor Pendergrass. In one instance we could not get any history of foreign body. The child had a massive atelectasis and the mother stated that he had a habit of eating paper.

Dr. L. Minor Blackford, Atlanta: This paper is of great importance to every one interested in precise diagnosis. The value of bronchoscopy was first brought home to me by the case of a girl who was secretary to a famous surgeon, whom you all know. She developed an afternoon fever and was sent to a sanatorium for tuberculosis patients. No tubercle bacilli were found. Some months later, when she came home on a visit, roentgenograms revealed a tooth that had been obscured by the shadow of the heart. The bronchoscope was passed, the tooth removed and two days later she was back at work.

The boy Doctor Cline showed in the moving picture had pneumonia in about 1917 and for several years was very ill. He was sent up to Alto with a diagnosis of tuberculosis. They proved he did not have tuberculosis but found advanced bilateral bronchiectasis. He was referred to me and I injected lipiodol into the lungs with temporary effect. Finally, Doctor Cline was good enough to take him on in his clinic. The boy changed greatly. His whole aspect toward life is different and my regret is that we did not start with bronchoscopy six years ago. (Note: This patient died September 3, following an operation to relieve acute intestinal obstruction).

It must be stressed that before bronchoscopic examination, patients should have complete examinations, including roentgenograms of the chest. In several cases of chronic cough at the Grady Hospital aneurysms have been discovered. If an aneurysm is not diagnosed, it is up to us to use the laryngoscope, bronchoscope and other scopes to make the diagnosis for we can treat cases of bronchiectasis with medicine for the rest of our lives and do no good.

Finally, in any case of unexplained chronic hoarseness nowadays, one owes it to the patient as well as to himself to call on a trained endoscopist for assistance.

Dr. Hal M. Davison, Atlanta: This paper is of great importance to a person interested in allergy. Doctor Cline mentioned four major difficulties, foreign bodies, stenosis, retained secretion and, in rare instances, ordinary bronchiectasis. Enough has been said about this phase of treatment to warrant our use of the bronchoscopic examination and treatment to take care of them. We have a large number of asthmatic patients, and, in a fairly large number, cannot get definite sensitization, and effect very little relief from any form of medical treatment. A lot of them are due to sinus infection or some form of bronchiectasis with

some infection in the lung, and we are looking with hope to these endoscopic treatments to give these patients relief. I know of no other patient who wrings the heart of the physician so much as those whom we see year after year and to whom we can give very little relief. We have had very little experience with this procedure but have tried some with good results. In looking over the literature we find some men with national and international reputation who claim that asthmatic patients can be relieved in one to three months after draining and spraying with cocaine and ephedrine.

Dr. B. McH. Cline, Atlanta, (closing): I only had time to mention strictures of the esophagus. Frequently children develop such strictures from swallowing lye, washing powders and other things. After the mouth has cleared up they forget about it, but later develop stricture. If these children were sent to an endoscopist after such an affair there would be a lot less suffering afterward.

In regard to tuberculosis, the bronchoscope is being used in Philadelphia today experimentally in tuberculosis. This disease is not a contraindication for the use of the bronchoscope. There are times when with slight cough and symptoms of tuberculosis the bronchoscope can be passed without dilution of the saliva and other secretions and a diagnosis sometimes can be made.

The endoscopic treatment of bronchial asthma is attracting more attention every day. I wish to impress upon you that no bronchoscope should be passed in a patient except for purposes of getting secretion for making autogenous vaccines until the sinus condition has cleared up. Doctor Moore has given as high as eighteen treatments, with good results. The bronchoscope also has been used in some instances during the acute attack with good results.

LYMPHOGRANULOMA INGUINALE

H. F. DeWolfe and J. V. Van Cleve, Cleveland (*Journal A. M. A.*, Sept. 24, 1932), call attention to the fact that lymphogranuloma inguinale, sometimes termed "climatic bubo", is a specific venereal disease. It is characterized by a persistent, subacute inflammation of the inguinal lymph glands which often produces fistulas. The cause is apparently a filtrable virus. In the male, infected by sodomy, and much more frequently in the female, there is an involvement of the perirectal glands with the production of anal fistulas and stricture of the rectum (ano-rectal syphiloma of Fournier, formerly supposed to be due to syphilis only). The authors prepared antigens from eleven of their cases according to the technic described by Frei. With these eleven antigens 1,103 intradermal tests were made on 1,010 patients with various types of disease. Fifty-eight patients were found to react positively to the test and either showed definite clinical evidence of the disease or gave a history of a chronic, inguinal adenitis. In thirty-one cases showing active inguinal manifestations of the disease, the best therapeutic results were achieved by surgical removal of the involved inguinal glands before the formation of fistulas.

SYMPOSIUM ON DISEASES OF THE BILIARY TRACT

DISEASES OF THE BILIARY TRACT*

The Medical Aspect

W. J. CRANSTON, M.D.
Augusta

No clear conception of the diseases of the biliary tract is possible without a working knowledge, at least, of the liver and its appendages. This huge organ, about which so little has been known in the past, is now obtruding itself upon our mental horizon, and we, at last, are becoming liver minded. Of course, since the time of Hippocrates, we have referred casually to a bad liver or a bilious attack, or when the yellow flag of icterus was flaunted in our face, we dignified the malady by giving it a name, jaundice. Occasionally a patient developed cirrhosis and we would think it was just too bad that he had drunk so much alcohol, but there really wasn't very much that could be done about it. There too was the cancer case from time to time but nobody had been able to do anything about that either. Much was known about the pathology, and the clinical entities were fully described, but of the functions of the liver, little was known until the present century.

It might well be worth while, it seems to me, to refresh your memory concerning certain fundamentals. The blood is carried to the liver by the portal vein and hepatic artery. The heavily charged portal vein subdivides into numerous capillaries which come in intimate contact with the liver cells, ultimately to terminate in the hepatic vein. Surrounding the liver cells are tiny bile canals, which form a system that ends in the two hepatic ducts which join to form the hepatic duct. The gallbladder, a small pouch lying just below the liver, tapers down to a small tube at one end, the cystic duct which joins the hepatic duct at a sharp angle to form the common duct. The latter enters the wall of the duodenum at an oblique angle and passes downward in the wall of the bowel, to finally empty its contents into the lumen of the latter. In its passage down the duodenal wall, it joins, or lies close to, the pancreatic duct. This sounds frightfully elementary and yet a most controversial point in treatment hinges on it.

Meltzer in 1917 found that a solution of magnesium sulphate applied directly to the duodenal mucosa would relax the tonus of

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Oddi's sphincter of the common bile duct and cause an expulsion of bile into the duodenum, on the theory that when the Oddi's sphincter relaxed, the gallbladder contracted. Lyon developed the idea and evolved the Meltzer-Lyon method of duodenal drainage. Diamond put a cannula into the duodenum and injected carmine into the gallbladder. Magnesium sulphate, hydrochloric acid and peptones were injected daily into the duodenum but no carmine appeared in the bowel. He concluded that, since these substances would not draw a dye into the bowel they would not draw bile, therefore duodenal drainage was futile. Kodoma, working in Graham's clinic showed that there was no muscle, but only elastic fibres in the gallbladder, and that it was incapable of peristaltic contraction. That the movements seen in the gallbladder were fluid waves imparted to the gallbladder from the abdominal viscera. He proved this by removing the gallbladder and substituting a rubber bag, which, functioned in precisely the same manner as a normal gallbladder except its inability to concentrate the bile. Many others have confirmed the above experiments and the non-surgical drainage of the gallbladder has lost much of its popularity.

Mann, Bellman and Mogath, especially the former, have thrown much light on the functions of the liver which might be summed up as follows: first, to secrete bile; second, to maintain the blood sugar level; third, to assist in the metabolism of proteins with production of urea and destruction of uric acid; fourth, to detoxify poisons from the intestinal tract or perhaps also from other sources; fifth, to destroy or render inert bacteria from the intestinal tract; sixth, to store fat and release it when needed; seventh, to retain some of the iron as it is broken up from the hemoglobin molecule. As to the function of the gallbladder, we are still in the dark. Aside from playing a part in regulating the pressure within the biliary system and concentrating bile by absorbing water, nothing is known, and it isn't thought these two assumed functions are important.

Diseases of the biliary tract are malignant and nonmalignant. I shall not touch on the former. The non-malignant may be divided into those having stone and those without. We have thought that cholecystitis, cholangitis and cholelithiasis were all there was to the picture, disregarding the liver and what effect diseases in the gallbladder, the cystic duct, the hepatic duct, and the common duct might have on that organ, possibly because of the so called "Large factor of safety" enjoyed by the liver. With the more refined

methods of studying the liver function however, we find that in disease there are insidious changes, taking place within the liver, in the minute bile channels, in the liver cells, and in and around the capillaries.

In 1895 Hirschfield commented on the frequent association between the chronic infected gallbladder and peptic ulcer and appendicitis and assumed this to be due to bacteria being carried by the blood stream to the liver, excreted into the bile, thence into the lumen of the gallbladder. However, Cushing was unable to infect the gallbladder of the dog unless the mucosa was injured, the cystic duct ligated or the circulation interfered with and pointed out that cholecystitis is rare with acute typhoid despite the bacteremia. While many others had remarked it before as a frequent accompaniment, it was Graham who postulated the theory, and proved it apparently, that hepatitis is a constant accompaniment of cholecystitis. He showed that there is always, in a piece of liver removed at cholecystectomy, infiltration of the interlobular or periportal spaces with polymorphonuclear or round cells, depending upon the acuteness of the infection around the branches of the portal vein and small bile ducts. Therefore cholecystitis is not an isolated infection but the entire biliary system is involved. He believes that cholecystitis is frequently secondary to hepatitis through the abundant lymphatic anastomosis which lies just below the serosa because it is in this region of the gallbladder that the infections most frequently occur, and not in the mucous membrane lining. He points out further that hepatitis follows experimentally produced cholecystitis, and thinks a vicious circle is established in many, but not all cases.

Kodoma showed that trypanblue injected into lymphatics of the 1st portion of the duodenum enter lymphatics of the gallbladder, but when injected into the 2nd and 3rd portion of the duodenum, the dye enters the lymphatics of the mesentery lower down. He assumes from this that a duodenum ulcer induces cholecystitis or cholangitis through the lymph channels. He also shows that trypanblue injected into the 2nd and 3rd portions of the duodenum enters the lymphatic gland at the beginning of the portal vein after passing through the lymphatics under the peritoneum between the duodenum and portal vein. He also shows that the lymphatics from the gallbladder, pancreas, liver, and first portion of the duodenum eventually reach the gland at the beginning of the portal vein: Therefore, an infected gallbladder eventually infects the liver.

A. P. Wilkie, in 1928 found, as many

others had observed, that the bile from an infected gallbladder was generally sterile, and when dropped on a culture of streptococi, retarded its growth or stopped it entirely. He found the lymph gland at the beginning of the portal vein positive in 80 per cent of the cases. He injected the bile within the gallbladder of experimental animals with streptococcus with negative results. He injected the gallbladder wall and developed the characteristic picture of chronic cholecystitis with the formation of cholesterine stones. He performed the same experiment with other animals except that he ligated the cystic duct. The same changes occurred with the exception that there were calcium deposits on the cholesterine stones. He then injected a vein in the ear of a rabbit with streptococcus. There was no local reaction, altho in some instances some was spilled into the surrounding tissue. No results were obtained from one injection. When two or more injections were made the results were identical with those obtained when the gallbladder wall was injected.

Kelly found 52 per cent sterile bile in 240 cases. In Huntmuller's 150 cases bile was positive in 2 per cent whereas the gallbladder wall was positive in 100 per cent and the liver substance in 80 per cent. Of these 60 per cent were streptococci while 12 per cent were colon bacillus. He suggests that the colon bacillus comes up thro the duodenum and does not penetrate the deeper structures whereas the streptococci being blood borne, enter the deep tissues.

All of which goes to show that while there may be a simple cholecystitis or cholangitis from which the patient may completely recover, in the majority of cases the entire biliary tract is involved, and in handling gallbladder cases, this must be borne in mind.

With such extensive and insidiously progressing pathology, the symptoms must, necessarily be vague and indefinite in many cases. Any indigestion that persisted should be studied for some organic disease of the gastrointestinal tract including the biliary system. Many cases begin and persist as chronic indigestion with occasional attacks of an indeterminate nature that brings them to the doctor. There may or may not be slight jaundice. Moynihon speaks of the inaugural symptoms as flatulence after eating; some epigastric distress, especially on the right side and possibly referred to the right back; early satiety; some nausea with perhaps faintness and salivation; a cold sensation with slight shuddering. In the acute attack the symptoms are too well known to repeat here, but it might be well to point out that the acute attack may be slight with serofibrinous exu-

date, or grave with a seropurulent one. Stone in the cystic duct is likely to produce the latter type. If the stone passes the attack subsides, possibly with a gallbladder that recovers, or leaving behind one that is chronically infected. If it doesn't pass, perforation may occur into the neighboring organs causing a fistulous tract. Hydrops of the gallbladder with acute gangrene sometimes follows, or the acute process may subside, leaving the bile sterile, but gallbladder walls infected. The surrounding peritoneum may become involved, and adhesions form involving the stomach, pylorus, duodenum, pancreas, colon, right kidney and liver. Complications that may arise from such involvement would include irregular heart action with its long train of symptoms, irregular emptying and distortion of the stomach and duodenum, attacks of colic and mechanical constipation, liver or lung abscess, subperitoneal or subphrenic abscess, etc.

Graham in 1918 showed that a dye, excreted with the bile, will visualize the gallbladder under the fluroscope and that a high fat meal, as cream and egg yolk, will empty the gallbladder. His theory is that the dye must be excreted by the liver into the bile and pass with the bile into the gallbladder, where it must be concentrated by absorption of water to give a dense shadow. The shadow is therefore densest in normal subjects. If the liver can't excrete the substance, if the cystic duct is occluded or if the gallbladder wall is diseased so that it cannot concentrate, the shadow will be faint or absent. As bile is poured out of the gallbladder, the shadow will diminish in size. By giving a fat meal, the gallbladder can be made to empty at will. In his hands this method of studying the gallbladder has given 90 per cent correct diagnosis. Absence of the shadow means gallbladder disease in 100 per cent. When the dye is given, soft calculi, otherwise invisible, become filling defects. Where there are many stones there is a mottled effect. Irregularities of contour may be due to adhesions or diverticula.

Other laboratory aids include testing for bile pigment retention, excretory function of the liver, and its metabolic function. The Von den Berg and the icterus index tests show the amount of the pigment in the blood serum. Latent jaundice can be brought to light which might otherwise escape unnoticed. The excretory function of the liver is also tested with a dye for which the liver has an affinity. The retention of the dye in the blood stream parallels pigment retention. In common duct obstruction, retention in the blood of the dye is high. It indicates me-

chanical obstruction only. The metabolic test, that for urobilin shows the absence of this substance, or, if present, the amount. It is entirely absent in complete blocking as by cancer of head of pancreas; diminished in partial block, or by stone in the common duct.

As to treatment, Moynihan says, "If inaugural symptoms are present and if cholecystographic shadow is absent, diminished in opacity or delayed in appearance, the integrity of the gallbladder may safely be impugned and operation for its removal be performed."

As to whether or not the gallbladder should be removed, is a decision the surgeon has to make. It seems to me though, that it is futile to drain only, if the gallbladder is infected. Many surgeons have said that, with the gallbladder in their hand, they could not decide whether or not it was normal, although there was nothing in its appearance to indicate any pathology. However, having removed it, they invariably found the walls of the viscus infected. This has caused many surgeons to lean to the side of cholecystectomy in all cases.

Certainly it would seem that nonsurgical drainage of the gallbladder is illogical except where the gallbladder wall is normal. Here it doubtless is of value. But where is the man who can say when such a state exists?

It has been shown that starvation for three days before chloroform anesthesia predisposes to cloudy swelling of the liver in experimental animals. Therefore it is suggested that patients be well nourished prior to the operation, and that glucose be given on the morning of the operation.

Bearing in mind that the liver assists in protein metabolism it is deemed wise to reduce the protein intake. A high fat diet, with fruits and carbohydrates added, seems to be best in most cases.

Snell and Weir suggest for symptomatic treatment that general diathermy is good for pruritus but results are only temporary. They use one to two grains of calomel in one-fourth to one-half gr. doses every half hour two or three days each week. For hepatic congestion with heart failure, Addison's pills. They regard tapping for ascites with disfavor, and think the best results are had from ammonium chloride and merbaphen plus a Keiths diet. O'Leary, in treating hepatitis due to lues attempts to slow up the hepatitis with mercury and potash until the collateral circulation can be established before attempting the arsenicals, which aggravate the symptoms in both hepatitis and gumma.

DISEASES OF THE BILIARY TRACT*

The Surgical Aspect

ROBERT L. RHODES, M.D.

Augusta

"The recognition of gallstones without symptoms and symptoms without gallstones" is as important today as ever. Biliary disease, as found upon routine post mortem examinations of adults, is common and frequently overlooked or in many cases fails to give recognizable symptoms. It is exceedingly uncommon among negroes. Gallstones may be either inflammatory or non-inflammatory in origin, though both causes may be present in many cases.

In the non-inflammatory type, the stones are cholesterol, due to a disturbance of metabolism and therefore found in association with certain metabolic diseases such as diabetes, obesity, convalescent typhoids and particularly pregnancy, in which the blood cholesterol may be increased 300 to 400 per cent. Cholesterol stones develop where there is a marked excess of cholesterol in the bile, or an insufficiency of the salts of bile acids to keep it in solution, and in biliary stasis. Elman and Graham have recently presented rather convincing evidence that the gallbladder does not absorb cholesterol but that it has the power of excreting cholesterol, and inflammation may accelerate this excretion. This may explain the pathogenesis of the strawberry gallbladder. If further studies prove their contention, the non-inflammatory classification will be merged into the inflammatory. In the latter, factors mentioned above certainly play a part. In addition infection may operate by clumps of organisms forming a nucleus for the development of gall stones and by bacterial action in splitting up the salts of bile acids which are the solvents of cholesterol. In an inflamed gallbladder, the mucous membrane secretes an unusually large amount of protein and calcium, with obvious significance.

Infection may reach the gallbladder thru (1) the portal vessels, thru the bile stream directly or thru the lymphatics of the walls of the gallbladder (Graham in particular has championed the latter); (2) The hepatic artery, from focal infection elsewhere in the body (Rosenow in particular, has stressed this possibility and developed a selective affinity theory, which however has met with more opposition than confirmation.); (3) Retrograde lymphatic infection, from

*Read before the Richmond County Medical Society, Augusta, Ga., January 21, 1932.

appendix, colon and so on; (4) Extension from neighboring inflamed organs; (5) Ascending infection thru the common bile duct. Another possible cause of biliary disease is the entrance of pancreatic juice into the common bile duct, and thence into the gallbladder. Figures given as to the anatomical possibility for such occurrence vary from 3.5 per cent to 84 per cent. Just as ascending infection may occur, so also may pancreatic juice get into the biliary tract, because pancreatic pressure is greater than liver pressure. Reverse duodenal peristalsis which occurs frequently in severe vomiting of pregnancy with spasm of the sphincter of Oddi, may be a contributory factor to such entrance.

The recovery of organisms from the bile or the gallbladder wall has been difficult owing to the inhibitory action of bile upon the growth of organisms. However, Wilkie in 1928, reported 45 positive out of 50 cultures made from the cystic gland, 43 of them being streptococci. Judd, Nickel and Wellbrock made cultures from the liver in 37 cases with 27 per cent positive and from the gallbladder in 30 cases with 47 per cent positive. In 7 cases cholecystectomy was not indicated and therefore cultures were not made. They conclude that this condition of hepatitis or cholangitis occurs routinely in the presence of cholecystitis. It is also true that this condition of the liver exists when recognizable change can not be made out in the gallbladder or bile duct. Probably, under these conditions, hepatitis is secondary to infection in some part of the portal system. It is a well-known fact that the liver has a marked detoxifying function and that these changes in the hepatic tissue at times may represent the reaction that has taken place as a result of neutralizing either bacterial or chemical toxins that have been brought to the liver by the portal circulation. We feel that hepatitis may occur as a primary condition and that the symptoms which result from it are similar to those of cholecystitis. Furthermore, removal of the gallbladder in these cases of primary hepatitis will relieve the symptoms.

In the group of cases studied, it was clearly shown that bacteria can be found in a certain proportion of these cases. It was difficult, however, to establish the importance of these bacteria from the standpoint of the hepatic change. The virulence of the organisms which were recovered from the liver was not great.

Graham has also published several studies upon the liver and its part in biliary diseases, in particular, the functional capacity of the liver and the relationship of this to mortality after operations on the biliary tract. He has shown it to be as essential to know the func-

tional capacity of the liver as to know that of the kidneys and by following methods developed by him he has lowered his own mortality in cholecystectomy from 6 per cent to 0.4 per cent.

Briefly his method consists in the intravenous administration of phenoltetraiodophthalein, about 2.5 G for an adult, which not only dyes the gallbladder for cholecystograms, but also stains (purple) the serum after slight alkalization. Patients with retention of 50 per cent or more of the dye after half an hour are given vigorous preparatory treatment until the retention is reduced to 30-40 per cent.

McClure, of the Ford Hospital in Detroit, re-emphasizes the medical drainage with the Rehfuess tube as a diagnostic procedure and states that in his clinic gallstones can be diagnosed in 73.8 per cent of cases as compared with a total of cholecystographic diagnosis of 35 per cent in the best of hands. His claim is that "A" bile is from the common duct; "B", darker, is from the gallbladder and "C," yellow, is from the hepatic ducts—he stressed microscopic studies of the material collected and especially the finding of cholesterol crystals and calcium bilirubinate pigment. If "B" bile can not be obtained, it is evidence of definite gallbladder disease.

Unobstructive cholecystitis may produce no more symptoms than a so-called acute attack of "biliousness" or acute indigestion. Failing appetite, a sensation of uneasiness in the epigastrium, later nausea, maybe slight chilly sensations and fever with more or less discomfort or actual pain in the epigastrium or along the right costal margin. Examination usually reveals tenderness over the gallbladder, maybe only rebound tenderness as emphasized by the late John B. Deaver, and spasm of the upper right rectus. Repeated attacks of this nature certainly strongly indicate biliary disease.

Symptoms of obstructive cholecystitis are certainly familiar to all, pain or colic, of various degrees of intensity, chills, fever, jaundice, if the common duct is obstructed and light or clay colored stools. Jaundice, of course, always indicates duct involvement.

In chronic cholecystitis repeated attacks of the above symptoms of varying degrees of intensity may occur or one may present only vague or indefinite digestive symptoms, such as fullness or distress in the epigastrium after eating, such as one gets from overeating. Greases are notoriously prone to bring this out, sometimes coarse vegetables and occasionally sweets. Jaundice is present only when the common duct is involved either by stone or extension of inflammation. "Fair, fat, forty, belches gas, gallstones" is a famous

old aphorism and is as apt today as when first enunciated—the addition of colic completes the diagnosis, though many cases never present appreciable colic. It is in this group that a cholecystogram is of most help as an adjunct in diagnosis.

Occasionally we encounter patients with such a history but who, at operation, fail to show any definite or discernible pathology anywhere in the abdomen. Such cases will be relieved by cholecystectomy. The history however, must be very convincing. Cholecystectomy will not relieve so-called bilious attacks from dietary indiscretion, constipation and so on, indeed one wonders if some of these have not been made worse. I know of no more difficult differential diagnosis to make than just where “bilious attacks” end and real cholecystitis begins—perhaps, and I believe, the former is the precursor in many instances, repeated indiscretions ultimately leading to infection in the liver and gallbladder. Undoubtedly many cases arise from focal infection in the teeth, tonsils and so on, but we also have that element of constipation or functional intestinal disorders, frequently, in association with the above foci and affording the portal of entrance of infection into the blood or lymph streams to the liver. Expressed otherwise, I wonder how many cases of chronic cholecystitis could be prevented by teaching people how to live, by warding off or overcoming dietary indiscretions, and constipation, the forerunner of “bilious attacks”. Let me not leave the diagnostic phase without an admonition as to abdominal angina and, if I may coin a phrase, “pseudo-biliary colic” due to myocardial incompetence or insufficiency, either may very closely simulate true biliary colic.

Now as to the biliary tract or particularly the gallbladder as a focus of infection itself, those of us who heard Royster's talk on this subject here about two years ago, recall his three T's “tonsils, teeth, tummy.” Of course there are many possible foci of infection in the abdomen, certainly in the male we should place gallbladder next after the appendix, if not indeed ahead of it, in women chronic pelvic inflammation has to be considered among the first three.

The infected gallbladder may be responsible for hypertension, migraine, arthritis, as well as muscular rheumatism, and many other diseases. In any search for a focus of infection do not forget the gallbladder. Frequently multiple foci are found including the gallbladder. Here one is confronted with the problem as to which should be attacked or removed first. Be careful not to overtax on already overworked liver, it may be wiser to

improve the liver and biliary tract first. Having established the diagnosis, we might paraphrase Dieulafoi's comment about appendicitis, “there is no medical treatment for gallbladder disease.” It is a surgical problem, however, not one to be entered into hastily or without proper evaluation of the patient, his heart, kidneys, lungs, liver, and so on. “There is indeed, very rarely an indication for emergency biliary surgery, almost the sole exception is the acute typhoid cholecystitis, developing either during the course or very shortly after typhoid fever. Such a gallbladder may become gangrenous and rupture. Jaundice is of course a very definite indication to wait and upbuild. Practically all cases of acute cholecystitis will subside in a few days under appropriate treatment, in the mean time the patient is building up immunity to the specific infection and measures for improving the general condition of the patient may be utilized, get the kidneys to acting freely, storing up glycogen in the liver, increase the tone of the heart muscle, increase the calcium content of the blood.

The early removal of an infected gallbladder is indicated not only to relieve such symptoms as it is producing but to prevent damage to neighboring organs either by extension of the infection or involvement in adhesions and to remove a possible site for the development of cancer. The great majority of cases of cancer of the biliary tract give a long history indicating chronic biliary disease.

The differential diagnosis between cancer and common duct stone may be summarized in Courvoisier's law, “In 80 per cent of the cases of obstruction of the common duct due to stones, there is contraction of the gallbladder, while in 90 per cent of the cases of enlargement of the gallbladder associated with jaundice, the obstruction is due to causes other than gallstones.”

I wish also to emphasize another frequently overlooked fact, that the operation is just the turning point in the patient's career. As with operations for hyperthyroidism, gastric with duodenal ulcer and many other analogies, he or she has just been rid of an offending structure and requires a longer or shorter period of time of careful watching and nurturing back to health, the elimination of factors which contributed to the production of the disease, efforts to remove evidence of damage done by the disease, especially hepatitis or liver infection. This may require 12 months or even longer.

Concerning the actual operative maneuvers, that is the problem for the surgeon to decide in the individual case and often until the abdomen is opened or in the course of the op-

eration. A very selected few cases, (I personally have never seen one) may be suitable for the late Murat Willis' "Ideal Cholelithotomy", the removal of stones, when there is no infection present, and closure of the gallbladder without drainage. Cholecystectomy is the ideal procedure in the overwhelming majority of cases. Not infrequently this is impractical or inadvisable, in bad risk cases or where unusual technical difficulties are encountered, certainly one should bear in mind that old aphorism that a living patient with gallstones is better than a dead patient without, in such cases it frequently is advisable to do a cholecystostomy, one may even be forced to leave stones present, as a palliative, if not a curative procedure. Later, when the patient is in better condition one can go back and remove the gallbladder. If all stones have been removed, a number of these will be cured. Again one may need to leave the gallbladder for a possible later cholecystgastrostomy where there is a question as to the integrity of the common duct, such an operation is of course the one of choice in cases of inoperable cancer of the common duct, ampulla, head of the pancreas and in certain cases of stenosed common ducts. Or one may resort to Estes' Partial Cholecystectomy, removing the free portion of the gallbladder, cauterizing and leaving that portion of the wall attached to the liver and draining the cystic duct. All these, however, are problems confronting the surgeon at the time of operation and he must rely upon his judgement.

1. Judd Mikel & Wellbrock: *Surgery Gyn. and Obs.*, January, 1932.

SEVENTH DISTRICT MEDICAL SOCIETY

The Society met with the Walker County Medical Society at the First Methodist Church at LaFayette, on September 28th. Dr. W. H. Perkinson, Marietta, President, presided. Invocation by Rev. C. R. Hall, Jr., LaFayette. Response to the Address of Welcome by Dr. E. M. Bailey, Acworth.

Report of the Committee on Public Policy and Legislation by Dr. Joe P. Bowdoin, Atlanta.

Report of the Committee on Necrology by Dr. E. M. Bailey, Acworth. Resolutions on the death of Dr. Leslie L. Blair, Marietta; Dr. W. T. Pace, Smyrna; and Dr. Chas. W. Burtz, Acworth, were ordered to be recorded in the minutes of the Society.

Dr. M. M. McCord, Rome, Councilor, gave an outline of the work which had been done and urged all members to promote the interests of the Association.

The Committee on Entertainment was thanked for its report.

Minutes of the last meeting were read and adopted.

The anniversary meeting of the Society will be held next at Marietta.

Address by Dr. Marvin M. Head, Zebulon, Presi-

dent of the Association: discussed by Drs. Perkinson, McCord, Mull, Bowdoin and Hammond.

Titles of scientific papers were as follows:

"Dyspepsia", Dr. Bert Kitchens, LaFayette: discussed by Dr. E. M. Bailey, Acworth; Dr. J. L. Bibb, Chattanooga, Tenn., and Doctor Kitchens, closing.

"Pernicious Anemia", Dr. Lloyd Wood, Dalton; discussed by Dr. Frank Easley, Dalton; Dr. W. P. Harbin, Jr., Rome; Dr. Bert Kitchens, LaFayette, and Doctor Wood, closing.

"Operative Technique and Postoperative Treatment of the Fulminating Gangrenous Appendix", Dr. J. T. McCall, Rome: discussed by Dr. M. M. McCord, Rome, and Doctor McCall, closing.

"Backache", Dr. R. C. Robertson, Chattanooga, Tenn.; discussed by Dr. Z. V. Johnston, Calhoun, and Doctor Robertson, closing.

"Eclampsia", Dr. H. P. Hewitt, Chattanooga, Tenn.; discussed by Dr. J. S. Alsobrook, Rossville; Dr. W. H. Perkinson, Marietta, and Doctor Hewitt, closing.

"Practical Problems in Pediatrics", Dr. L. D. Hoppe and Dr. W. H. Kiser, both of Atlanta; discussed by Dr. M. M. McCord, Rome, and Dr. W. H. Perkinson, Marietta.

"Local and Economical Problems of Medicine in the Seventh District", Dr. W. H. Lewis, Rome. In the absence of Doctor Lewis the paper was read by Dr. J. H. Mull, Rome.

"Medicine Years Ago", Dr. J. W. Clements, Subligna. The paper was read by Dr. A. C. Shamblin, Cartersville, Secretary of the Society.

The papers were all high class, well prepared and elicited unusual interest.

The members of the Woman's Auxiliary to the Walker County Medical Society served lunch in the dining room of the church. Resolutions were passed extending a vote of thanks to the members of the Auxiliary and the local society for the refreshments and cordial hospitality.

The next meeting of the Society will be held at Marietta.

W. H. PERKINSON, M.D., *President*.

A. C. SHAMBLIN, M.D., *Secretary*.

FORCED SPINAL DRAINAGE IN ITS RELATION TO INFECTIONS OF THE CENTRAL NERVOUS SYSTEM

GEORGE M. RETAN, Syracuse, N. Y. (*Journal A. M. A.*, Sept. 3, 1932), used forced spinal drainage in twenty-one cases of various infections of the central nervous system. In four autopsies in cases of septic meningitis no hydrosis of any organ was found. There was evidence of a washing of fluid through inflammatory areas. Products of inflammation were washed from the depths of affected areas. The field of greatest usefulness for forced spinal drainage was in diseases of the central nervous system characterized by perivascular round cell infiltrations. Forced spinal drainage was shown to be a safe procedure. Over two thousand hours of treatment have produced no alarming symptoms.

POSTGRADUATE WORK IN GEORGIA

Statistical Report of Summer Courses for Physicians
Participated in by
University of Georgia, Emory University, Medical
Association of Georgia, Local County Medical
Societies and Department of Public Health
In Selected Centers for the District

Eight Courses Instead of Six As Formerly Held

EXTENSION COURSES FOR PHYSICIANS
1932*District No. 1—Valdosta*
June 13-17

Total physicians notified	150
Individual physicians attending	52
Counties represented	8
Total days attendance	145
Florida physicians	9
Average daily attendance	29

District No. 2—Statesboro
June 20-24

Total physicians notified	96
Individual physicians attending	35
Counties represented	8
Total days attendance	97
Average daily attendance	19

District No. 3—Albany
June 27—July 1

Total physicians notified	124
Individual physicians attending	53
Counties represented	16
Total days attendance	124
Average daily attendance	25

District No. 4—Hawkinsville
July 4-8

Total physicians notified	126
Individual physicians attending	25
Counties represented	7
Total days attendance	58
Average daily attendance	12

District No. 5—Milledgeville

July 11-15

Total physicians notified	134
Individual physicians enrolled	36
Counties represented	7
Total days attendance	96
Average daily attendance	19

District No. 6—Griffin

July 18-22

Total physicians notified	243
Individual physicians attending	39
Counties represented	8
Total days attendance	91
Average daily attendance	18

District No. 7—Athens

July 25-29

Total physicians notified	251
Individual physicians attending	65
Counties represented	15
Total days attendance	151
Average daily attendance	30

District No. 8—Rome

August 1-5

Total physicians notified	261
Individual physicians attending	57
Counties represented	11
Total days attendance	118
Average daily attendance	24

Woman's Auxiliary and Registered Nurses

62 ladies attended at Griffin

2 ladies attended at Albany

15 ladies attended at Rome

No record received of attendance of ladies at other points.

COMPARATIVE ATTENDANCE

	1931	Attending Individuals	Counties Represented
Athens	76	20	
Rome	66	11	
Albany	60	18	
Swainsboro	45	14	
Waycross	37	10	
Macon	42	8	
	326	81	

RECAPITULATION

Districts	Doctors Notified	Attending Individuals	Counties Represented	Total Days Attendance	Average Daily
No. 1—Valdosta	150	52	8	145	29
No. 2—Statesboro	96	35	8	97	19
No. 3—Albany	124	53	16	124	25
No. 4—Hawkinsville	126	25	7	58	12
No. 5—Milledgeville	134	36	7	96	19
No. 6—Griffin	243	39	8	91	18
No. 7—Athens	251	65	15	151	30
No. 8—Rome	261	57	11	118	24
	1539	362	80	880	176

Average daily attendance for all districts..... 21

Respectfully submitted, T. F. ABERCROMBIE, *Director.*

Miss Alice S. Meadows, Atlanta, Georgia, Department of Public Health, recently taught a class in midwifery at the courthouse in Baker county.

THE JOURNAL

OF THE
MEDICAL ASSOCIATION OF GEORGIA
Devoted to Welfare of Medical Association of Georgia

139 Forrest Avenue, N.E., Atlanta, Ga.

OCTOBER, 1932

CANCER OF THE STOMACH

Hippocrates was familiar with the clinical picture of gastric carcinoma. Celsus, too, preceded Sippy by some nineteen centuries in advising a liquid diet at intervals in the treatment of disorders of the stomach. Our gastroenterologic friend in Birmingham who disapproves so violently the high fat content of the classic Sippy regimen, would be interested to know that Celsus diluted his milk with equal parts of water.

However, it was less than a hundred years ago that the real argument was started as to the possible importance of ulcer in the etiology of cancer of the stomach. There have been extremists on both sides; some authors have maintained that all cancers originate in ulcers, and others that none do. The argument has waxed particularly hot in the last twenty years. One is tempted to say that at times more heat than light has been engendered.

The question has now been settled, at least to the writer's satisfaction, by Bueermann's monograph that recently appeared in *The Western Journal of Surgery*. This journal by the way, which was founded two years ago, is the first regional journal devoted to a specialty in the United States. *The Southern Surgeon* is the second.

Working in the Mayo Clinic, Bueermann had the opportunity to study 1,142 consecutive gastric carcinomas,—the clinical histories, the laboratory data, including roentgenograms, the gross specimens and many microscopic sections from each. For purposes of comparison, he had a large series of resected gastric ulcers. The undertaking involved also a review of the literature.

It is not practicable to reprint all of his conclusions, but certain points from this authoritative monograph are worthy of repetition. The average duration of symptoms in the series of benign ulcers was eight years; in

the cancer series less than one year. In less than 4 per cent of the cancer cases was there a history suggestive of an antecedent ulcer. Histologic evidence of such an ulcer was found in an even smaller number.

Achlorhydria does not mean carcinoma of the stomach and hyperchlorhydria is sometimes present with cancer.

Approximately 80 per cent of the cancers in this series were graded three or four by Broders' classification, that is, they were highly malignant. The roentgen diagnosis is not infallible, nor indeed is any other method of diagnosis infallible except the microscopic. It might be remarked parenthetically that even the microscopist sometimes fails to examine that small segment of the lesion in which cancer is to be found.

In the closing paragraph Bueermann has brought out the crux of the whole situa-

The JOURNAL would like to record the scientific work of Georgia doctors. It earnestly requests, therefore, that each physician in the State who publishes a contribution in some other medical periodical submit an abstract of the article for these columns.

tion,—namely, that, while it is a matter of the greatest scientific interest to determine the proportion of gastric ulcers that undergo malignant degeneration, it does not help the individual patient. It is impossible to distinguish absolutely before microscopic examination between benign ulcer of the stomach and cancer. The only hope of cure in gastric carcinoma so far discovered is resection in the early stages. If therefore, a systematic attempt is made to exercise promptly all ulcerating lesions of the stomach, whether considered benign or malignant, there should be a marked drop in the mortality from this horrible disease.

L. M. B.

The Southern Medical Association will hold its Twenty-Sixth Annual Meeting in Birmingham, Ala., November 16, 17, 18, 1932. Medicine and surgery in its every phase will be covered in the general and clinical sessions. Sixteen sections and four joint meetings with other societies will be held. The officers of the Association extend a most cordial welcome to all our members. No effort will be overlooked to make the meeting one of the best.

VETERANS' LEGISLATION AND THE A. M. A.

On June 7, 1924, Congress passed the World War Veterans' Act authorizing the hospitalization of needy veterans suffering from neuropsychiatric, tuberculous and certain other named diseases, without regard to their military origin, when there were available beds in the then existing government hospitals. This was recommended by President Coolidge and at the time seemed a fairly reasonable suggestion. However, it furnished the entering wedge for the hospitalization and treatment of all veterans of all wars for all diseases and injuries without regard to their origin.

In an editorial, "The Care of the Veteran", the Journal of the American Medical Association on November 15, 1924, called the attention of the profession to the provisions of this Act and pointed out the inherent dangers, particularly with reference to its interpretation and administration. Later, at the Atlantic City session, May 25-29, 1925, the House of Delegates unanimously adopted the following resolution:

"Resolved, that the American Medical Association, through its accredited representatives and with the assistance of the accredited representatives of constituent organizations, whose cooperation is solicited, put forth every honorable effort to secure an amendment to the Veterans' Act of 1924, which shall do away with Federal free medical and surgical services and care for all veterans except those whose disabilities have been caused by war service for our country, or at least restrict free medical and surgical services and care to those veterans who are unable to pay for the same."

"The Trend of Veterans' Relief Legislation: State Medicine", an editorial in the Journal of the A. M. A. for January 23, 1926, condemned in no uncertain terms the trend of Veterans' Legislation at that time. Its prophecies have been more than fulfilled—and the end is not in sight. The Association's Bulletin for February, 1928, carried a careful study of pending legislation entitled "Federal, Medical and Surgical Relief for Diseases and Injuries of Civil Life," by Dr. Wil-

liam C. Woodward, Director of the Bureau of Legal Medicine and Legislation in which was pointed out the inequality and injustice of proposed legislation. In addition, the officers and committees of the Association have made many trips to Washington and have spent many long hours with members of Congress in an effort to correct this unwise legislation.

The American Medical Association has consistently and persistently done everything in its power to prevent the extension of Federal aid for the medical and surgical relief of diseases and injuries of civil life without regard to the ability of the recipient to pay for such services. Why have all of its efforts met with such absolute and complete failure? Because its constituent state associations and component county societies have failed miserably to cooperate with the American Medical Association. Not until every county society realizes and accepts its responsibility can anything be accomplished in any legislative program.

DOCTOR DUDLEY W. HAMMOND (1809-1887)

In the September issue of THE JOURNAL, we published a tentative list of biographies to be included in the "History of Medicine In Georgia". In this list occurred the name "D. W. Hammond". This did not refer to Dr. D. W. Hammond, of LaFayette, who has for many years been one of our most active, useful and valuable members.

It referred to Dr. Dudley W. Hammond, who was born in South Carolina on May 12, 1809. He studied medicine with Dr. Henry Freeman, of Carnesville, in Franklin County, and Doctor Banks in Elbert County, and later received his M.D. degree from the Georgia Medical College at Augusta in 1830. He settled in Culloden, where he practiced for twenty-one years, later removing to Macon where he became well known as a surgeon. In 1876 he was elected a representative of the Medical Association of Georgia to the International Medical Congress at Philadelphia, and also served as Vice-President of the Association. He continued in active practice up to the time of his death, July 4, 1887.

"Every man owes some of his time to the upbuilding of the profession to which he belongs."—Theodore Roosevelt. This includes our members. We are fully as anxious to serve them in the most helpful capacity.

The Eighty-Fourth Annual Session of the Medical Association of Georgia will be held at Macon, May 9, 10, 11, 12, 1933.

GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. ABERCROMBIE, M.D., *Director*PRACTICAL LABORATORY AIDS IN
DIAGNOSIS OF CERTAIN FEVERS

During the past four years, up to September, 1932, more than 11,000 specimens of whole blood have been examined serologically and bacteriologically in the laboratories of the State Department of Public Health. The serological work has consisted of quantitative titration by the microscopic method of agglutinations for typhoid, Brill's typhus, undulant fever, tularemia and to some extent for paratyphoid A and B. The bacteriological study has consisted of the culturing of the clotted portion after most of the serum had been removed. Since the object of this paper will be to discuss the interpretation of the agglutination reactions, as reported to the physician, no attempt will be made at this time to analyze the results grossly.

The serum of each specimen is removed from the clot under sterile precautions and diluted in small tubes so that when the specific antigen is added the final dilutions are 1:40, 1:80, 1:160, 1:320, 1:640, and sometimes higher as the occasion demands. After four hours water bath incubation at 37 degrees Centigrade, followed by overnight storage in the ice box, the reactions are read as four, three, two or one plus, and negative, as the case may be. These readings are then translated and reported to the physician in terms of strongly positive, positive, weakly positive, doubtful and negative. A strongly positive report means that a complete, or four plus reaction, was obtained at least as high as 1:160 of the patient's serum. This applies particularly to typhoid and paratyphoid reactions. Those for Brill's typhus, undulant fever and tularemia, when reported as strongly positive, usually are complete as high as 1:320 and above. A positive report refers to reactions somewhat weaker than those reported strongly positive and so on down to negative. On the reverse side of each report to the physician an interpretative schedule is given, as well as other suggestions as to interpretation.

During the four years this study has evolved a definite routine procedure which we believe has been of great value to the physicians in the differential diagnosis of fevers, as evidenced by the rapid increase of the number of specimens submitted each year. However, the value of this service depends, to a large extent, upon the proper interpretation

by the physician of the reports he receives from the laboratory. Those physicians who have made repeated use of this service now have less difficulty in interpretation than at first. These men realize that each case is individual; that he can use the laboratory findings only as an aid to diagnosis, and that they are to be correlated with the clinical symptoms, the stage of infection at the time the specimen was submitted and perhaps other factors such as pre-existive immunity due to specific vaccination or to previous attack of the specific infection.

Let us suppose that a physician sees a patient ill with fever and presenting certain subjective and objective symptoms. He may or may not make a tentative diagnosis. He collects a specimen of blood from a vein, using preferably the Keidel vacuum tube (Wassermann outfit). If this is obtained from the State Laboratories it is sterile. With very simple precautions in sterilizing the skin he can easily obtain a sample free of extraneous contamination. He then fills out the Wassermann specimen blank, which provides space for designating in writing what specific tests he desires. It often proves to the physician's interest to give, in addition, a brief clinical summary, in that this may encourage the laboratory to other tests not specified on the blank. As a rule the physician receives report only on specified tests. He first receives the report on agglutination reactions. Later he gets a separate blood culture report which is dispatched as soon as positive findings are obtained or as soon as the laboratory is satisfied that the culture is negative. The negative culture report may be delayed five or six days or longer.

The physician who had had little or no experience in interpreting or correlating agglutination reactions may be greatly puzzled and disappointed when he gets his reports. If not careful he may even be misled into a wrong diagnosis. Perhaps the best way to discuss interpretation of these reactions will be to present certain type cases. While these are more or less hypothetical, each type is encountered time and time again in actual practice.

Type 1.—Patient's onset ten days prior to collection of specimen. Clinical diagnosis typhoid. Agglutination strongly positive typhoid. Blood culture positive typhoid—Clinical diagnosis confirmed without question.

Type 2.—Same as Type 1, except onset five days prior to collection of specimen. Agglutination reaction

weakly positive or negative. Blood culture positive typhoid. Clinical diagnosis confirmed. In this case the agglutinins have not had time to form in the blood. This usually requires seven to ten days, sometimes longer. Here the positive blood culture is the deciding feature and outweighs even the clinical findings. The only possible source of error is the very remote chance that the technician may have mixed specimens or that the report clerk used the wrong rubber stamp.

Type 3.—Onset five days. Clinical diagnosis typhoid. Agglutination weakly positive. Blood culture negative reported five days later. Case continues to run fever suggestive of typhoid. On tenth day another specimen is collected. Agglutination reaction reported as weakly positive, showing no increase. Although only typhoid agglutination was requested, the laboratory routinely makes a so-called spot or trial test for Brill's typhus and undulant fever. Second report shows positive reaction for Brill's. Clinical differentiation between typhoid, Brill's typhus and also undulant fever is often difficult during the first few days even for a clinician of wide experience.

The weakly positive reaction for typhoid in this case could be attributed to previous vaccination even years previously or to a previous attack of typhoid, or to the fact that any acute and some chronic infections may produce a false or non-specific agglutination reaction for typhoid.

Type 4.—Onset fifteen days. Clinically typhoid—agglutination strongly positive—blood culture negative. Patient known to have had three injections of typhoid vaccine three months prior to onset. Physician considers Brill's or undulant and sends another specimen. Report comes back strongly positive typhoid—negative Brill's and undulant. Blood culture negative. Because of continued clinically typhoid course, the laboratory is asked for suggestions. The doctor receives special outfits and requests for stool and urine. These are sent and both, or either one, reported positive culture B, typhosus. This case illustrates: first, the fact that typhoid fever can and occasionally does occur in persons properly vaccinated; second, that the chances of obtaining a positive blood culture greatly decline after the first ten days of fever; third, the value of stool and urine cultures, which heretofore have been overlooked.

Type 5.—Onset five days. Clinically suggestive of Brill's. Patient has rather typical typhus rash. Agglutination reaction negative for Brill's as well as for typhoid paratyphoid and undulant. Another specimen sent on eighth day. Reaction for Brill's still negative. The physician is puzzled and due to typical clinical case decides laboratory is in error. He sends a third specimen. On the tenth day he received a strongly positive report for Brill's typhus. Both the physician and laboratory were right. Frequently in typhus the reaction may change from negative to strongly positive in twenty-four hours.

Type 6.—Patient has history of intermittent fever for two weeks with definite symptoms not characteristic of any specific infection. He sends a blood specimen

requesting tests for typhoid, paratyphoid, Brill's undulant fever and tularemia. The resultant report shows negative for typhoid and Brill's, but strongly positive for undulant fever and tularemia. Along with the report is a letter explaining that both reactions were complete at dilution 1:640 and negative at higher dilutions, but that due to cross agglutinins the one for the other further study will be necessary on additional specimens. A second specimen shows the reaction for undulant fever to be complete as high as 1:2500, while that for tularemia is the same as before. Here the laboratory diagnosis points to undulant fever. This type of case is relatively rare, but has been encountered on several occasions.

There are many other types and combinations of types which cannot be enumerated for lack of space. These six are, however, sufficient to illustrate a number of important factors, which have to be considered in interpreting agglutination reports, to wit:

1.—Specific agglutinins do not often appear in the blood until after the seventh to the tenth day. This applies to all of the diseases referred to above.

2.—Typhoid agglutinins are often produced by non-specific agencies and particularly by active infections other than typhoid present at the time a test is made.

3.—Previous vaccination or a previous attack of typhoid produces specific typhoid agglutinins which persist in a large percentage of individuals for years.

4.—Previous vaccination for typhoid even when recent and properly administered using the most efficient vaccine does not always protect.

5.—A positive blood culture for typhoid is most apt to be obtained during the first week or ten days after onset.

6.—Cross agglutination pseudo-reactions are often obtained. Sooner or later, however, the reaction for the specific infection will be stronger than the other.

7.—After the second week of typhoid fever feces and urine cultures often prove to be the only deciding factor in a differential laboratory diagnosis. There are other factors not brought out in the discussion of type cases which should be remembered.

8.—Laboratory workers are human, hence subject to human error. By constantly checking every step in the procedure it is hoped that the incidence of error will continue to be minimum.

9.—The value of the laboratory finding is proportional to the care and good judgment of the physician in collecting the specimen.

10.—The laboratory can only aid in diagnosis. After all is said and done the physician must diagnose his own case, making what use he can of the laboratory.

11.—Finally, the value of the laboratory findings is proportional to the experience and knowledge of the clinician in correlating them with the clinical findings in each individual case, keeping in mind the various influencing factors.

GEORGIA STATE NURSES ASSOCIATION

Officers

President—Miss Alice F. Stewart, R. N., Augusta.
 First Vice-President—Miss Dora A. Kershner, R. N., Macon.
 Second Vice-President—Miss Lillian Cumbee, R. N., Emory University.
 Secretary—Miss Florence Pund, R. N., Augusta.
 Treasurer—Miss Jane Van De Vrede, R. N., Atlanta.
 Miss Jane Van De Vrede, R. N.
 Executive Secretary

District Presidents

First—Mrs. Dorothy Treagle, R. N., Savannah.
 Second—Mrs. B. Y. Vann, R. N., Thomasville.
 Fourth—Miss Lucia Massee, R. N., Cuthbert.
 Fifth—Mrs. Sue B. Paille, R. N., Atlanta.
 Sixth—Mrs. Sarah P. English, R. N., Sandersville.
 Seventh—Miss Shirley Hamrick, R. N., Cedartown.
 Eighth—Miss Lynda Bray, R. N., Athens.
 Ninth—Miss Ruby Falls, R. N., Gainesville.
 Tenth—Mrs. Olive Barbin, R. N., Augusta.

Headquarters

131 Forrest Avenue, N. E., Atlanta.

MISS MARY M. ROBERTS, R. N., DISCUSSES THE NURSING SITUATION BEFORE THE AMERICAN COLLEGE OF SURGEONS

That the job of nursing this country is only just begun, is the opinion of Miss Mary M. Roberts, R. N., Editor of the American Journal of Nursing, expressed at the annual convention of the American College of Surgeons, held in St. Louis October 17.

"Nursing", said Miss Roberts, "cannot go forward without the counsel of those with whom the nurses daily serve in the care of individual patients. It is infinitely more than medicine's left-overs and the following out of orders for treatment. Under medical direction, nursing is the responsibility for the environment of the patient, for creating about him a pool of peace in which the medical treatment can best function, as well as for the manual arts of nursing."

"No longer under compulsion to produce numbers of nurses, nursing can now center its attention upon the quality of nurses and of nursing care. A new system that will free hospitals, which are service organizations, of the financial responsibility for conducting an educational institution—the school of nursing—is needed. The old system of nurse training is outworn. Society is demanding better and more carefully selected and prepared nurses," said Miss Roberts.

Of the present overproduction, too much is composed of poorly prepared nurses, according to Miss Roberts, who believes this is a grave situation in nursing which should cause anxiety to all employers of nurses, since no effective means of protecting the patients from these poorly qualified workers has been set up. The onus for production of poorly prepared nurses rests on nurses, doctors and hospital executives and can only be righted with the active cooperation of all three, and with the aid of the public, upon whom the responsibility for the education of public servants should rest," Miss Roberts believes.

Outlining the necessary steps in changing the system, Miss Roberts said that the first thing for schools of nursing to do is to take the lessons of the Grading Committee to heart; second, to watch the studies of the Committee on the Costs of Medical Care; third, assist with cost studies in order that nurse training costs may be justly allocated to service or education, as the case may be, with a view to securing funds for each.

Her advice is timely. Than Miss Roberts there is perhaps no nurse in this country to-day more understanding of nursing and more capable of assisting with the problems of service because of her broad experience and unusual contacts.

It is interesting that after graduation in 1899 from the Jewish Hospital, Cincinnati, her first work brought her to the south as clinic nurse in the Erlanger Hospital, Chattanooga, Tennessee. From Chattanooga she went to Savannah, Georgia, becoming the first Superintendent of the training school of the Savannah Hospital, now the Warren A. Candler Hospital.

Then private duty in Chicago claimed her for four years, after which for a short while she was acting Supervisor of the Maternity Department of the Evanston Hospital. Later she became Superintendent of the Dr. C. R. Holmes Hospital, Cincinnati, where she remained for some years.

During the world war she was director of the bureau of nursing of the Lake Division of the American Red Cross, serving until she accepted the position of director of the unit of the Army School of Nursing at Camp Sherman. At the close of the war she became a student at Teachers' College, Columbia University, from which institution she has her Master's degree.

In organization work Miss Roberts has played a conspicuous part also, being at one time both President of the Ohio State Nurses'

(Continued on Page 420)

WOMAN'S AUXILIARY

OFFICERS

President—Mrs. S. T. R. Revell, Louisville.
 President-Elect—Mrs. J. Bonar White, Atlanta.
 First Vice-President—Mrs. N. Peterson, Tifton.
 Second Vice-President—Mrs. C. Thompson, Millen.
 Third Vice-President—Mrs. J. W. Simmons,
 Brunswick.

Recording Secretary—Mrs. J. E. Penland, Waycross.
 Corresponding Secretary—Mrs. F. B. Rawlings,
 Sandersville.
 Treasurer—Mrs. Chas. Usher, Savannah.
 Parliamentarian—Mrs. Charles Hinton, Macon.
 Editor—Mrs. C. W. Roberts, Atlanta.

HEALTH EDUCATION WORK

As President-Elect of the Auxiliary and an ex-officio member of the Cancer Commission of the Medical Association of Georgia, Mrs. Bonar White submitted the programs of the Auxiliary and Cancer Commission to the President and officers of the Georgia Congress of Parent-Teacher Association. The programs were approved and invitations extended to Dr. J. L. Campbell, Chairman of the Cancer Commission, and Mrs. White to deliver addresses before the Congress Institute at the University of Georgia in Athens.

Mrs. White was an invited guest at the Executive Session of the Institute and explained to the Assembly the purposes of the Mother-Welfare program. The members in attendance were pleased with the proposed work and tendered their help and co-operation in promoting the work. The Health Education Program of the Auxiliary was unanimously adopted and Mrs. White appointed as special representative of the Auxiliary to address the District Institutes which will be held by the Parent-Teacher Association during the fall.

The President of the Georgia Federation of Women's Clubs recommends the adoption of the Auxiliary's program and believes the members will be pleased to have speakers from the Medical Association of Georgia.

MRS. S. T. R. REVELL.

PROGRAM 1932-1933

MOTHER WELFARE

(This is to include important facts in regard to cancer and the study of Maternal Mortality and Infant Deaths and this program is to be the most important one for the year.)

There are to be three-minute talks on the following subjects to all lay organizations that desire to help carry out this program of the Medical Association of Georgia:

Ellis Health Law
Periodic Examination
 (Children on May Day; Adults on Birthday)
Sight Conservation
Examination of Servants
Immunization Against Typhoid, Smallpox
and Diphtheria
Vital Statistics
Periodic Examination of Teeth and Correction
of Defects
Degenerative Diseases

In addition to this program, the Medical Association of Georgia continues to sponsor Health Week, to assist

the National Congress of Parents and Teachers with their splendid Summer Round-Up, and to co-operate with the White House Conference for Child Health and Protection.

It is the wish of the Medical Association of Georgia for their Woman's Auxiliary to present this program to all lay organizations and if these organizations wish to adopt it for the Woman's Auxiliary to work out the details and the Medical Association and State Department of Public Health to furnish the material for these programs and to supply the speakers.

If you are interested in co-operating in this work and desire the material for carrying out this program, write to Mrs. _____, who is a member of the Committee of Health Education and Public Relations of the Woman's Auxiliary to the Medical Association of Georgia and she will be glad to send you all necessary information and to arrange for a speaker for your main program.

Mrs. N. Peterson, of Tifton, Ga., is the Chairman of this Committee.

OUR TASKS 1932-33

1. To undertake nothing without the approval of the Advisory Committee of the Medical Association of Georgia.

2. To secure an Advisory Counselor for every County Auxiliary and any changes or additions to our state program to meet local conditions should only be undertaken with his approval.

3. To have each District and County Auxiliary that has not already done so adopt a Constitution and By-Laws.

4. To have, as far as feasible, in each County Auxiliary chairmen corresponding to those in the State and National Auxiliaries.

Organization (or Membership).
 Health Education and Public Relations.
 Hygiene.
 Press and Publicity (or Editor).
 Public Policy and Legislation.
 Citizenship for Medical Legislation.

(This last committee is a sub-committee under Public Policy and Legislation to study only such bills as the Medical Association of Georgia wishes the Auxiliary to sponsor.)

5. To contribute to the Health Film Library and

to endeavor to have an exhibition of Health Films in every county, at least in the ones having an Auxiliary.

6. To inspire our Auxiliary women to be more generous in their contribution to the Students' Educational Loan Fund, in order that the work of this only piece of philanthropic activity undertaken by the Auxiliary as a whole shall not be retarded during this financial crisis.

7. To assist in the entertainment at State, District, and County Meetings and to promote good fellowship among our members.

8. To present the program of health education that was outlined by the Medical Association of Georgia to all lay organizations and if these organizations wish to adopt it, for the Woman's Auxiliary to work out the details and the Medical Association and the State Department of Public Health to furnish the material for these programs and to supply the speakers.

9. To co-operate with the National Auxiliary in every way and try to efficiently establish their card filing system and to continue with the Treasurer's receipt blanks.

10. To give our best efforts towards the accomplishments of these tasks, so when we are called upon to give an account of our stewardship, we need not be ashamed.

BOOK REVIEW

A Convenient New Pharmacology of the Medicinal Agents in Common Use.—The student of medicine will always find the large standard texts on pharmacology indispensable for critical study of the actions and uses of drugs. These texts, however, are in many instances so voluminous that they are not available for ready reference or for study in spare moments.

Heretofore there has been no comprehensive, small-size work on pharmacology. To meet this need, Dr. Stanley Coulter, Dean Emeritus of the Purdue University School of Science, spent over three years in the preparation of a compact treatise on the pharmacology of the drugs now in common use by the medical profession. In this work he had the co-operation of members of the medical and research staffs of the Lilly Laboratories.

The subjects are alphabetically arranged for quick reference. Under each title there is a terse statement of the constituents of the drug, its physiological action, dosage, and brief mention of its more important therapeutic uses.

This Pharmacology is prepared with special attention to the needs of the medical student. The main part of the text dealing with individual drugs is followed by an appendix of tables and miscellaneous information useful to the medical student. In no sense is this book intended to supplant the larger standard texts on pharmacology. On the other hand, it is the hope of its author and the publishers that the use of the pocket-size book will so intrigue the student in the subject that he will be led to closer studies of the great authorities on pharmacology.

The book is supplied in flexible fabricoid binding,

254 pages, 3 3/8 by 6 inches, green edges; published by Eli Lilly and Company, Indianapolis; price 50 cents per copy, postpaid.

BOOKS RECEIVED

Functional Disorders of the Large Intestine and Their Treatment, by Jacob Buckstein, M.D., Instructor in Gastrointestinal Roentgenology, Cornell University Medical College; Alimentary Tract Division, Roentgen Department, Bellevue Hospital; Consultant in Gastroenterology, U. S. Veterans' Bureau, Central Islip and Rockaway Beach Hospitals; Associate Attending Gastroenterologist, Sydenham Hospital, New York City. Contains 265 pages, with 60 drawings in text and 40 reproductions of radiographs. Publishers: Harper & Brothers Publishers, 49 East 33rd Street, New York City. Price \$3.00.

The Sputum—Its Examination and Clinical Significance, by Randall Clifford, M.D., Associate in Medicine, Peter Bent Brigham Hospital; Assistant in Medicine, Harvard Medical School; Formerly Associate Physician and Director of Pulmonary Clinic, Massachusetts General Hospital. Contains 167 pages. Publishers: The Macmillan Company, New York City.

Mental Deficiency Due to Birth Injuries, by Edgar A. Doll, Ph.D., Director of Research, The Training School of Vineland; Winthrop M. Phelps, M.D., Professor of Orthopedic Surgery, Yale University School of Medicine; Consultant in Birth Injuries, The Training School at Vineland; Ruth Taylor Melcher, M.A., Research Assistant, The Training School at Vineland. Contains 289 pages. Publishers: The Macmillan Company, 60 Fifth Avenue, New York City, N. Y. Price \$4.50.

The Curative Value of Light—Sunlight and Sun-Lamp in Health and Disease. By Edgar Mayer, M.D., Consultant in Light Radiation to the American Medical Association Council; Medical Director of the North Wood Sanatorium and the National Variety Artists Sanatorium, Saranac Lake, N. Y.; Medical Consultant to the Broad Street Hospital, New York City, Monmouth Memorial Hospital, Red Bank, N. J.; and Municipal Sanatorium of Otisville, N. Y. Contains 175 pages. Publishers: D. Appleton and Company, 44 Hewes Street, New York. Price \$1.50.

Treatment of Syphilis. By Jay F. Schamberg, M.D., Professor of Dermatology and Syphilology in the Graduate School of Medicine of the University of Pennsylvania; former President of the American Dermatological Association. And Carroll S. Wright, M.D., Professor of Dermatology and Syphilology in the Temple University School of Medicine; Associate Professor of Dermatology and Syphilology in the Graduate School of Medicine of the University of Pennsylvania; former President of the Philadelphia Dermatological Society. Contains 658 pages. Publishers: D. Appleton and Company, New York City.

Hospitals and Child Health. Reports of the Sub-committees on Hospitals and Dispensaries, Convalescent Care and Medical Social Service. The recommendations will be a guide to strengthen and aid in the growth of pediatric departments. There are 6,667 hospitals in the United States. The estimated number of beds is 905,246, of which 81,055 are for children. A publication of the White House Conference. Contains 279 pages. Publishers: The Century Company, 353 Fourth Avenue, New York City. Price \$2.50.

THE SOUTHEASTERN SURGICAL CONGRESS FOURTH ANNUAL ASSEMBLY

The attention of the medical profession is called to the announcement of the Fourth Annual Assembly of the Southeastern Surgical Congress, which will be held in Atlanta, Georgia, March 6, 7 and 8, 1933.

THREE FULL DAYS

Begin Plans Now to Attend

The same high-class program which characterized the second and third assemblies will be provided, also clinics will be conducted by some of the speakers.

An additional day with additional speakers. Watch for the program.

B. T. BEASLEY, M.D.,
Executive Secretary.

COMMUNICATIONS

JOURNAL AND ROSTER OF MEMBERS

To the Editor:

I have your kind letter of September 10th and thank you for your kindness in sending me the roster of your members by counties. In the meantime, same has come in my possession and I am indeed glad to possess it.

Yours very truly,

DR. W. SCHMID,

Acting Consul of Switzerland.

September 13, 1932.
New Orleans, La.

PRIZE FOR BEST PAPER

Dr. Allen H. Bunce, Chairman,
Awards Committee,
Atlanta, Georgia.

My Dear Dr. Bunce:

It has been called to my attention that many of the best papers which have been and are now being presented to the Fulton County Medical Society are written jointly by two or more young men. This thought is entirely in keeping with my idea of awards, and if it meets with the approval of the Committee and yourself, I would like to have you notify the Society that the award which I am fortunate enough to offer should be, and will be given, for the best paper, whether written jointly or individually.

Very truly yours,

L. C. FISHER, M.D.

September 15, 1932.
Atlanta, Georgia.

GEORGIA HOSPITAL ASSOCIATION QUARTERLY MEETING

The first quarterly meeting of the Georgia Hospital Association was held at Emory University Hospital, Emory University, Georgia, on October 7th. Miss Feebeck, President, presided. Those present were the guests of the hospital at dinner. Thirty-two members were present.

The minutes of the last meeting were read and approved.

Mr. W. D. Barker, Superintendent of Georgia Baptist Hospital, delivered an address on the Financial Problems of Private Hospitals Under An Economic Depression such as exists at the present time. He was followed by Mr. J. B. Franklin, Superintendent of Grady Hospital, who discussed legislation which would be beneficial to hospitals. This was followed by a general discussion.

Motion carried that the Secretary be authorized to send flowers to any member of the Association who might be ill. The members were requested to notify the Secretary of such cases.

Motion carried that the President appoint a committee to study the establishment of a central school of nursing and report its findings at the next meeting.

The president appointed the following committee to arrange for a central meeting place for the future meetings of the Association:

Mr. J. B. Franklin, Chairman; Mr. Robert Hudgens, Mr. W. D. Baker.

The following committee was appointed by the President to arrange the program for the next meeting:

Dr. J. H. Hines, Chairman; Miss Jessie Candlish, Miss Jane Van De Vrede, Miss Lillian M. Bischoff.

A unanimous vote of thanks was extended Emory University Hospital for the hospitality extended the Association at this meeting.

GEORGE R. BURT, *Exec. Secretary.*

NEWS ITEMS

The Macon Medical Society (Bibb County) met on September 6th. The scientific program consisted of papers entitled "Medical and Surgical Treatment of Gastric and Duodenal Ulcers", Dr. Chas. N. Wasden, Macon; "Ruptured Gallbladder, Perforated Duodenum and Lacerated Pancreas—Case Report", Dr. Thomas Harrold, Macon. The legislative program of the Medical Association of Georgia was submitted to all candidates to represent Bibb county in the General Assembly of Georgia, 1933-34. Each candidate agreed to study and consider all sections of the program and to advise the officers of the society of his endorsement or non-approval before the primary, which was held on September 14th.

The Muscogee County Medical Society met in the Lecture Room of the City Hall at Columbus on September 8th. The scientific program consisted of the titles of papers: "Management of Obstetrical Cases", Dr. Jas. C. Woolridge, Columbus; "Ruptured Appendix", Dr. O. D. Gilliam, Columbus; "Amenorrhea", Dr. Jas. H. McDuffie, Jr., Columbus. Discus-

sions were led by Drs. H. J. Bickerstaff, Geo S. Murray, and A. N. Dykes, all of Columbus.

Dr. J. Mason Baird announces his association with Dr. Grady E. Clay, Suite 511 Medical Arts Building, Atlanta. Practice limited to ophthalmology.

Dr. J. H. Stanford, formerly engaged in the active practice of medicine at Trion, has moved to Cartersville and opened offices for the practice of medicine and surgery.

The Walker County Medical Society met at Ross-ville on September 2nd.

The Fulton County Medical Society met at the Academy of Medicine, Atlanta, on September 15th. The following titles of papers were on the scientific program: "Severe Traumatic Pneumothorax—Report of Two Cases", Dr. Dan C. Elkin, Atlanta; "Hospital Conditions in the South", Dr. D. Henry Poer, Atlanta; "Angioid Streaks of Choroid and Pseudoxanthomaelasticum", Dr. Grady E. Clay, Atlanta. Drs. Jack Jones, F. P. Calhoun and Herbert Alden, all of Atlanta, led the discussions.

The Whitfield County Medical Society held its regular meeting at Dalton on August 23rd. Resolutions were unanimously adopted to endorse the legislative program of the Association and to actively support such measures as will carry out the program.

The Ninth District Medical Society met at the Marin Institute, Jefferson, on September 21st. The following titles for scientific papers were on the program: "Management of Heart Disease", Dr. Geo. R. Wilkinson, Greenville, S. C.; Dr. Hal M. Davison, Atlanta, led the discussion. "Addison's Disease", Dr. R. L. Rogers, Gainesville; Dr. Pratt Cheek, Gainesville, led the discussion and presented patients with Pigmentations and Other Symptoms. "Allergic Diseases with Special Reference to Skin Manifestations", Dr. C. B. Lord, Jefferson. "Injection Treatment of Varicose Veins Hemorrhoids", Dr. Paul Scoggins, Commerce; Dr. J. L. Meeks, Gainesville, led the discussion. "Uterine Hemorrhage", Dr. L. C. Allen, Hoschton; Dr. J. H. Downey, Gainesville, led the discussion.

Dr. T. Conrad Williams, formerly of Valdosta, has opened offices in the Rose Building, Orlando, Fla., for practice of medicine and surgery.

Dr. Lewis M. Gaines, Atlanta, read a paper before the Fifth District Dental Society at its regular meeting at the Academy of Medicine, Atlanta, entitled "Focal Infection".

The Spalding County Medical Society met at the Strickland and Son Memorial Hospital, Griffin, on September 20th. Judge D. R. Cumming spoke on the "Legal Phase of Medical Practice".

Dr. John W. Good, Cedartown, announces the removal of the Cedartown Hospital to the Vann home on Herbert Street. The hospital now has a more modern and attractive building in a favorable location

of the city. There will be no change in the personnel of the institution except Miss Margaret Mathis has been added to the nursing staff.

Dr. C. O. Rainey, Camilla, County Commissioner of Health for Mitchell County, held a Health Institute for the teachers of the county on September 1st and 2nd. There was a large attendance and the teachers gave visible evidence of unusual interest in the health of school children.

Dr. O. F. Collum, formerly of Chauncey, has removed to McRae and opened offices in the Enterprise Building.

The Fulton County Medical Society met at the Academy of Medicine, Atlanta, on October 6th. Titles of papers on the scientific program were as follows: "Diffuse Arteriosclerosis of the Coronary Artery—with Specimen", Drs. Jas. E. Paullin and R. Hugh Wood, Atlanta; "Case of Diplopia Following High Blood Pressure and Traumatism—Case Report", Dr. Dunbar Roy, Atlanta; "Hyper-Orchidism—Case Report", Dr. J. K. Fancher, Atlanta; "Gastric Hemorrhage", Dr. L. G. Baggett, Atlanta; "Plan of Flap Cutting, in Amputation of Female Breast, Designed for Purpose of Preserving Free Range of Arm Motion and Avoiding Skin-Crafting", Dr. Geo. H. Noble, Sr., Atlanta. Discussions were led by Dr. J. L. Campbell, Dr. LeRoy Childs and Dr. Floyd McRae, all of Atlanta.

The Randolph County Medical Society met at the Woman's Club Room, Cuthbert, on October 6th. Dr. F. S. Rogers, Coleman, and Dr. E. C. McCurdy, Shellman, gave Case Reports; Dr. R. C. Pendergrass, Americus, read a paper entitled "Metastases of Carcinoma"; Dr. E. B. Anderson, Americus, "Malignancies of the Bladder."

The Thomas County Medical Society met in the school auditorium at Barwick on September 22nd. Dr. Rudolph Bell and Dr. Chas. K. Wall, both of Thomasville, read scientific papers.

The Georgia Medical Society (Chatham County) met on September 27th. Dr. Wm. H. Myers, Savannah, read a paper entitled "Looking Backward—A Bit of Medical History". Miss Eleanor Worrell-Dudley gave a case report of "Correction of Speech Defects, and Teaching Deaf Mutes to Talk."

The Staff meeting of St. Joseph's Infirmary, Atlanta, was held on September 27th. Dinner was served in the nurses' dining hall. The officers of the staff are: Dr. Leo P. Daly, Atlanta, President; Dr. J. L. Pittman, Atlanta, Secretary.

The Macon County Clinic, Montezuma, was established by local physicians and opened on October 1st with a small hospital unit equipped with a modern Victor x-ray outfit.

Dr. Zach W. Jackson announces the removal of his

office to 310 W. W. Orr Doctors Building, 478 Peachtree Street, N.E., Atlanta. Practice limited to diseases of the eye.

The Seventh District Medical Society met at LaFayette on September 28th. The following titles of papers were on the scientific program: "Dyspepsia", Dr. Bert Kitchens, LaFayette; discussed by Dr. E. M. Bailey, Acworth, and Dr. W. B. Floyd, Rome. "Per-nicious Anemia", Dr. Lloyd Wood, Dalton; discussed by Dr. S. M. Howell, Cartersville, and Dr. Frank Easley, Dalton. "Backache", Dr. R. C. Robertson, Chattanooga, Tenn.; discussed by Dr. W. B. Hair, Summerville, and Dr. Z. V. Johnston, Calhoun. "Eclampsia", Dr. H. P. Hewitt, Chattanooga, Tenn.; discussed by Dr. J. S. Alsobrook, Rossville, and Dr. C. V. Wood, Cedartown. "Practical Problems in Pediatrics", Dr. L. D. Hoppe, Atlanta; discussed by Dr. R. C. Maddox, Rome, and Dr. R. W. Fowler, Marietta. "Local and Economic Problems in the Seventh District", W. H. Lewis, Rome. "Operative Technique and Postoperative Treatment of the Fulminating Gangrenous Appendix", Dr. J. T. McCall, Rome; discussed by Dr. W. M. Gober, Marietta, and Dr. Trammell Starr, Dalton. Address by Dr. Marvin M. Head, Zebulon, President of the Association.

Dr. Chas. D. Ward announces the removal of his office to the Doctors Building, 1345 Greene Street, Augusta.

The members of the Ware County Medical Society were entertained at a barbecue by Mr. Robert Peagler at Manor on October 5th.

Dr. John B. Cross and Dr. Lisle B. Robinson announce the removal of their offices to 35 Fourth Street, N.E., Atlanta.

Dr. R. W. Richardson has returned to Macon and opened offices for the treatment of diseases of the eye, ear, nose and throat. He has just completed eighteen months' postgraduate work at the Eye, Ear, Nose and Throat Hospital, New Orleans.

The Society of Plastic and Reconstructive Surgery will hold its next annual meeting in New York City, October 28-29. Clinics will be held at the Hospital for Joint Diseases, Mount Sinai Hospital, Sydenham Hospital, New York Academy of Medicine, Post Graduate School and Hospital, New York Skin and Cancer Hospital, New York Hospital and Cornell University.

The members of the Clinical Society of the Piedmont Hospital, Atlanta, were entertained at dinner in the dining room of the hospital on October 10th. Dr. Jesse York, Atlanta, gave a case report entitled "Abdominal Tumor"; Dr. Jas. E. Paullin and Dr. R. H. Wood, both of Atlanta, gave case reports entitled "Aplastic Anemia".

The American Medical Association announces that the regular Annual Conference of Secretaries of Constituent Medical Associations will be held at the Palmer House, in Chicago, on November 18-19, 1932. Practically the entire program will be given over to a discussion of the rapid development of contract practice in its various forms and of the many artificial plans that are being promoted for providing medical and hospital service. There will also be a discussion as to the attitude organized medicine should assume toward these various movements. While the budget for the Conference provides only for the payment of travel expense for secretaries and for editors of state medical journals, all officers of constituent state medical associations will be cordially welcome. Dr. Allen H. Bunce, Atlanta, will represent the Medical Association of Georgia.

September 17, 1932, was the 117th birthday anniversary of Dr. Joshua Gilbert, who was the first physician to practice medicine in Atlanta. The Fulton County Medical Society commemorated the event by placing a wreath on the grave of Doctor Gilbert at Utoy Church Cemetery, near Fort McPherson. Dr. J. L. Campbell presided over the exercises, Dr. Frank K. Boland made an address on Doctor Gilbert and his times. Mrs. Hal Davison, representing the Woman's Auxiliary, placed a wreath on the grave of Doctor Gilbert's wife. Dr. Joshua Gilbert was born in Clemson County, S. C., in 1815, and died at his country home near Atlanta in 1889. He graduated in medicine from Augusta Medical College, now the Medical Department of the University of Georgia, in 1845. The same year he began practicing medicine in Atlanta, which then was a village of only a few hundred population. For six months he was the sole physician of the place. He continued to practice his profession in Atlanta for many years and then located in the suburbs, where he practiced until a few years before his death. Doctor Gilbert was a fine type of a doctor of the old school and was held in the highest esteem by all who knew him. On the day of his birthday celebration his family presented his portrait to the Fulton County Medical Society and gave to the Calhoun Medical Library of Emory University the metal mortar in which he mixed his medicines.

The Fifth District Medical Society met at the Academy of Medicine, Atlanta, October 12th. The following titles of papers were on the scientific program: "Mothers' Welfare", Dr. J. L. Campbell, Atlanta. "Infant Feeding", Dr. Wm. Willis Anderson, Atlanta. "The Use of Quinidine Sulphate in Heart Disease", Dr. H. C. Sauls and Dr. Carter Smith, both of Atlanta. "Some Reflections on Medical Pioneering in South Carolina", Dr. Edgar A. Hines, Seneca, S. C. "Aortitis", Dr. Russell Littlejohn, Sumter, S. C.; discussion led by Dr. Jas. E. Paullin and Dr. R. S. Leadingham, both of Atlanta. "The Diagnosis and Management of Diseases of the Biliary Tract", Dr. Chas. H. Richardson, Macon; discussion led by Dr. Frank K. Boland and Dr. Dan Elkin, both of At-

lanta. Address by Dr. Marvin M. Head, Zebulon, President of the Association. Officers elected were: Dr. Joseph Yampolsky, Atlanta, President; Dr. Geo. W. Fuller, Atlanta, Vice-President; Dr. Hulett H. Askew, Atlanta, re-elected Secretary-Treasurer.

The Eleventh District Medical Society met in the Elks Hall at Douglas on October 11th. The following titles of papers were on the scientific program: "Trachoma", Dr. E. F. Thompson, Valdosta; "The Physiology of Vision. The Cause of Squint and Its Results—Illustrated", Dr. B. H. Minchew, Waycross; "Preventive Pediatrics", Dr. Benjamin Bashinski, Macon; "Relief of Vesicle Neck Obstruction, Illustrated by Motion Pictures", Dr. Major F. Fowler, Atlanta; "Pain in the Right Abdomen—Its Differential Diagnosis", Dr. Kenneth McCullough, Waycross; Address by Dr. T. H. Clarke, Douglas, President of the Society.

The Georgia Medical Society, Savannah, held its regular meeting on October 11th. Dr. S. Elliott Wilson, Savannah, read a paper entitled "Foreign Bodies of Paraffin in the Bladder"; discussion led by Dr. L. W. Shaw and Dr. Wm. Shearouse, both of Savannah. Dr. Julian K. Quattlebaum, Savannah, "Treatment of Paralytic Ileus with Perfringens Antitoxin—Case Report".

The Staff Meeting of the Crawford W. Long Memorial Hospital, Atlanta, was held on October 13th. The program consisted of: "Atresia of Esophagus—Case Report", by Dr. T. F. Davenport, Atlanta; "Unusual Case of Congenital Defect of the Intestinal Tract", Dr. B. H. Clifton and Dr. L. H. Kelley, both of Atlanta. Discussion of mortalities.

Dr. I. H. Hunter, formerly of Archer, Florida, has removed to Blakely, Georgia, and opened offices for the practice of medicine. He was reared in Colquitt County.

The Muscogee County Medical Society met in the Lecture Room of the City Hall, Columbus, on October 13th. Dr. Francis B. Schley, Columbus, read a paper entitled "Fevers of Obscure Origin"; Dr. O. D. Gillian, Columbus, "Ruptured Appendix". The discussions were led by Dr. Mercer Blanchard and Dr. A. N. Dykes, both of Columbus.

Dr. Samuel F. Rose, formerly of Augusta, announces his removal and opening of offices at 4 East Jones Street, Savannah. Practice will be limited to internal medicine and dermatology.

Dr. E. G. Ballenger, Atlanta, was the principal speaker before the Kiwanis Club at the Ansley Hotel, Atlanta, on October 11th.

MARRIAGE

Miss Nancy Levering Chisholm, Savannah, to Doctor John Wilfred Daniel, Jr., Savannah, at the Independent Presbyterian Church in Savannah on October 15, 1932.

OBITUARY

Dr. Wiley H. Quillian, Lula; member; Georgia College Eclectic Medicine and Surgery, Atlanta, 1902; aged 55; died suddenly at his office on September 9, 1932. He was born and reared in Hall County and had practiced medicine in Lula and community for more than twenty-five years. Doctor Quillian was Chairman of the Board of Education of the Lula Consolidated School, Chairman of the Board of Stewards of the Belton Methodist Church, member of the Masons and the Hall County Medical Society. He was prominent in civic, educational and religious affairs, devoted a great deal of time and contributed liberally to the cause of each. Surviving him are his widow, one son, Wiley H. Jr.; one daughter, Mrs. Clarence Shore, Alto. Funeral services were conducted from the residence at Belton and interment in the local cemetery.

Dr. John B. Clark, Eastman; College of Physicians and Surgeons, Baltimore, Md., 1893; aged 63; died at his home on September 7, 1932. He was born and reared in Dodge County and had practiced medicine for more than thirty years in his home city and community. Surviving him are his widow, one son, Dr. Fred Clark, Baltimore, Md.; two daughters, Misses Alma and Mary Clark, Richmond, Va. Funeral services were conducted from the residence by Rev. W. B. Feagan and Rev. J. S. Hartsfield. Interment was in the city cemetery.

Dr. William Harvey Malone, Tallapoosa; member; University of Georgia Medical Department, Augusta, 1902; aged 54; died at his home on September 11, 1932 after an illness of two years' duration. He enjoyed an extensive practice in Haralson and adjoining counties. Doctor Malone was a prominent citizen and held in high esteem by a large circle of friends. He was one of the most popular physicians of his county. Surviving him are his widow, four brothers, J. R. and T. M. Malone, both of Dowelltown, Tenn.; S. V. Malone, Watertown, Tenn.; and J. W. Malone, Tullahoma, Tenn. Funeral services were held at Mizion, Ga., and interment in the local cemetery.

Dr. J. R. M. Carter, Carrollton; Emory University School of Medicine, Emory University, 1883; aged 59; died at a private hospital in Carrollton on September 14, 1932. He was born and reared in Coweta county. After receiving his degree in medicine, he began practice at Hollingsworth's Ferry, in Heard county and continued in that vicinity until 1906, when he moved to Carrollton. Doctor Carter retired from the active practice of medicine a number of years ago. He was a member of the First Baptist Church. Surviving him are his widow, four sisters and three

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brothers. Funeral services were conducted from the First Baptist Church by Rev. H. P. Bell. Interment was in the city cemetery.

Dr. Charles W. Burtz, Acworth; member; Atlanta College of Physicians and Surgeons, Atlanta, 1903; aged 61; died at his home on September 18, 1932. He had endeared himself to all his acquaintances. Doctor Burtz had an extensive practice and was a prominent citizen. He took an active interest in the welfare of his community and was prominent in medical circles. At the time of his death, he was president of the Cobb County Medical Society. Surviving him are his widow, one daughter, Mrs. Hubert Malone, Rydal; two sons, George W. and C. Wm. Burtz, both of Acworth. Funeral services were conducted by Rev. Walter Millican from the Methodist Church. Interment was in Liberty Hill Cemetery.

Dr. Daniel Jefferson Rogers, Glennville; Emory University School of Medicine, Emory University, 1885; aged 71; died in a local sanitarium on September 21, 1932. He practiced medicine in Tattnall and adjacent counties for more than forty years. Doctor Rogers was a member of the Masonic lodge. Surviving him are his widow, and one son, D. J. Rogers, Jr. Funeral services were in charge of the Masons and interment was in Adams Cemetery, near Reidsville.

Dr. LeRoy Bryant, Maxeys; Georgia College Eclectic Medicine and Surgery, Atlanta, 1905; aged 49; died at his home on September 22, 1932. He was a prominent physician and had an extensive practice in Oglethorpe county. Doctor Bryant was a prominent member of the Masons and other secret orders. Surviving him are his widow, one daughter, Miss Sarah Ann Bryant, Maxeys; one son, LeRoy Bryant, Jr., Maxeys. Interment was in the village cemetery.

Dr. Gustavus V. Cate, Brunswick; member; College of Physicians and Surgeons of Baltimore, Md., 1888; aged 70; died at his home after an illness of several months' duration on October 2, 1932. He was born and reared in Orange County, North Carolina. Doctor Cate had practiced medicine for more than forty years. He began practice in Mary Oaks, N. C. immediately after receiving a degree in medicine, then moved to Sampson County, N. C., and to Brunswick in 1893. Doctor Cate was County Commissioner of Health in Glynn County for thirty-four years and served the people in every section of the county. His generous treatment of all classes of patients had endeared him to literally thousands of people. Doctor Cate was not only successful in the practice of medicine but had been active in other work, poultry raising and agriculture. Surviving him are his widow, two daughters, Mrs. Chas. E. Hight, Meridian, Miss., and Miss Vassa Cate, Brunswick. Rev. A. W. Rees conducted the funeral services from the First Methodist Church. Members of the Glynn County Medical Society formed an honorary escort. Interment was in Palmetto Cemetery.

MEMORIAL TO DR. ELMORE C. THRASH

WHEREAS, the death of Doctor Elmore C. Thrash removed from the Medical Association of Georgia an outstanding member and the profession throughout the state has suffered a great loss in his passing.

As it is fitting and proper that expression should be given to the sorrow which is felt by his colleagues and those who knew him well.

BE IT RESOLVED, That the Medical Association of Georgia does hereby take cognizance of the inestimable loss which has been suffered by the community in which Doctor Thrash lived, by the profession which he long adorned with honor and credit, and by the members of his family.

THAT his knowledge as a physician was complete. He began in a rural community where the only incubator available was his own body, next to which he kept his culture tubes day and night. As might be expected, he was called to a greater field very soon after he began practice and located in Atlanta, where he became a leading physician, an inspiring teacher and a worthy leader. The medical profession and the people of Georgia will ever remember him gratefully for the work he did in organizing our State Board of Health. His wise counsel and leadership in the Medical Association of Georgia has stood as a beacon guiding us to safety through many storms. No young man ever sat at his feet as a student or by his side as a friend without arising with a feeling of confidence and assurance. He enjoyed mirth and good fellowship, always in the spirit of kindness. He was never unkind. Our Association has lost not only a former beloved President, but a member who has served faithfully and well in all departments. His impelling example guides us onward.

THAT a copy of these resolutions be sent to the bereaved family and included in the minutes of the Council and records of the Medical Association of Georgia.

CLEVELAND THOMPSON, M.D.

J. A. REDFEARN, M.D.

MARVIN M. HEAD, M.D.

Committee of Council.

NEW MEMBERS FOR 1932

Baird, J. Mason, Atlanta.
Bryant, V. L., Bartow.
Bucknell, Howard, Atlanta.
Edwards, E. C., Atlanta.
Fishburne, Chas. C., Brunswick.
Fitts, C. C., Carrollton.
Joyner, A. S., Woodcliff.
McKemie, H. M., Albany.
Powers, I. C., Marietta.
Thomason, W. L., Atlanta.
Tootle, G. W., Glennville.
Wade, A. C., Augusta.
Zachary, J. D., Gray.

NURSES DEPARTMENT

MISS MARY M. ROBERTS, R. N., DISCUSSES THE NURSING SITUATION BEFORE THE AMERICAN COLLEGE OF SURGEONS

(Continued from Page 412)

Association and a member of the Ohio Committee of Nurse Examiners. Her work and interest in these positions brought her closely in touch with nursing affairs generally, with state registration and nursing laws, of which Miss Roberts has made a considerable study since that time. She has even touched the public health nursing field as a one time member of a visiting nurse association board.

Journalism first claimed her when she began the study of this subject at Teachers' College, with no thought at the time of taking up magazine work. She assumed duties as Co-Editor of the American Journal of Nursing on the first of August, 1921, and later became Editor of this magazine, which is the official organ of the American Nurses' Association.

Miss Roberts, who is well known and loved by Georgia nurses is a magnetic and forceful speaker, and withal a woman of great charm.

ORAL THERAPY IN CONGENITAL SYPHILIS

The use of Stovarsol in congenital syphilis by pediatricians abroad induced Maxwell and Glaser to investigate the value of the therapy. The results achieved in ten cases are reported in full in the *Am. J. Dis. Child.* 43:1461-1489, June, 1932.

In four cases the Wassermann reactions were negative when treatment was begun, but as the parents were 4 plus treatment was not delayed. These cases had remained negative over a period of thirteen months when reported. The other six cases had positive Wassermann reactions. Three were reversed after the first course of treatment, two at the end of the first rest period, and the other at the end of the second course of Stovarsol therapy. The results in these infants, all under one year of age when treatment was begun, are encouraging. Children over one year of age did not respond so readily.

Other advantageous features of Stovarsol therapy in congenital syphilis in infants and children as reported are: the remedy is administered by mouth, and the patients generally show improvement in appetite, general vigor and energy.

The authors believe that Stovarsol has a definite place in the treatment for congenital syphilis. Administration must always be under the direction of the physician as toxic symptoms may appear. In the majority of cases these symptoms are evidently mild in character but occasionally they may be severe.

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manufactured in this country by Messrs. Merck & Company, Inc., of Rahway, N. J.

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The institution is located at 132 Forrest Avenue, N.E., Atlanta and was opened three years ago with Dr. Harold F. McDuffie, Director.

Since 1914, Doctor McDuffie has limited his practice to diseases of the eye, ear, nose and throat, and was formerly associated with the late Dr. William E. Campbell. For ten years he was a member of the Georgia State Board of Medical Examiners and a past President of the Atlanta Association of the Eye, Ear, Nose and Throat Physicians.

The hospital is the first and only institution in Atlanta devoted exclusively to this branch of medicine and is unique in that patients of the institution have the work done on a flat fee basis, which covers all the necessary charges for examination, operation, hospitalization and nursing.

More than 1,500 operations have been performed in this short time and the success is due to the many friends among the profession.

It is hoped that the institution at some future time will develop a free clinic and a postgraduate course in eye, ear, nose and throat diseases.

Miss Mary M. Roberts, R. N., Editor of the *American Journal of Nursing* delivered an address before the delegates to the annual convention of the American College of Surgeons in St. Louis, on October 17th.

TREATMENT OF CONGENITAL CLUBFEET: STUDY OF THE RESULTS IN 200 CASES

J. H. Kite, Decatur, Ga. (*Journal A. M. A.*, Oct. 1, 1932), reports on a study he made of the results following several methods of treatment in 200 consecutive cases of congenital clubfeet, in order to determine the efficiency of the different methods of treatment and also to determine some of the factors that influence treatment. From a detailed study of 149 patients in the nonoperative group, he draws the following conclusions: 1. The duration of the treatments has been shortened very little by beginning treatment at an early age. Counting the time to complete the initial treatment and all recurrences, the fifty children who started treatment under one year averaged only nine-tenths of a week less than did the thirty-one who started treatment between one and seven years. However, early treatment is strongly recommended because it seems to give better feet. 2. After the child begins to walk the duration of treatment becomes progressively longer. 3. The group treated twice a week showed a saving of 4.2 weeks over the group treated once a week. 4. It requires 1.4 weeks longer, on the average, to correct the deformity in boys than it does in girls. 5. Children who have been previously treated require, on the average, as long for the correction of their deformities as those who have never been treated. 6. Fifty per cent of the children with other congenital deformities had recurrences, while only 18 per cent of the otherwise normal children showed recurrences. 7. Children with other congenital deformities require, on the average, thirteen weeks longer for the correction of the clubfoot deformity. Eighty-eight per cent of all clubfooted children who have applied for treatment during the last seven years have been successfully corrected by the nonoperative method. These patients have been corrected by casts and wedgings without the use of an anesthetic or force.

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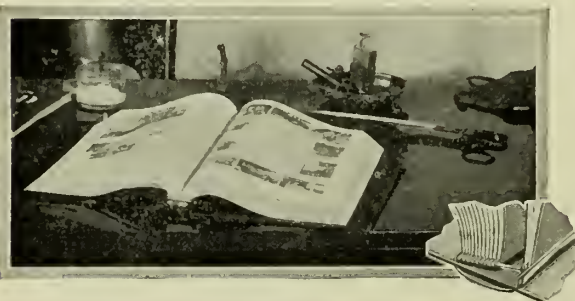
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SYMPOSIUM ON THE PSYCHONEUROSES

THE ORIGIN AND DEVELOPMENT OF THE PSYCHONEUROSES*

LEWIS M. GAINES, M.D.
Atlanta

Systemization of ideas tends to prevent confusion of thought. Hence it is important to obtain as clear a conception as possible of exactly what is meant by the designation, "Psychoneuroses." The term is of comparatively recent coinage, and is intended to be descriptive of a number of symptom-groups characterized by nervous disturbance without demonstrable physical basis. It is the result of an effort, attributed by some to Freud, to devise a generic name to include all cases of this type.

While the nomenclature is not standardized, the majority of authorities consider the psychoneuroses to include hysteria, neurasthenia, psychasthenia and anxiety neurosis. It must be remembered that these names do not stand for clear-cut disease entities, but for types of reaction, largely to various emotional stimuli, in susceptible individuals. Thus, a young woman in response to a painful emotional situation develops paralysis and anesthesia or other manifestations of what we call hysteria. Another patient is filled with complaints referred to the head, the stomach, the heart, and bitterly complains of fatigue, mental and physical. Yet a scrupulous examination reveals no evidence of disease. Here we have come to use the name, neurasthenia. Still another person, while perhaps possessing neurasthenia traits, is tortured by a variety of obsessions, which may be intellectual, as continually recurring doubts of generally accepted beliefs, such as of the

existence of God; or it may be emotional as exemplified by abnormal fears or phobias, or morbid desires; or finally volitional, as illustrated by one of my patients who, in eating her meals, was impelled to count to a certain number and move her limbs in a stereotyped way before each bite. Eating thus became a formidable task. The patients recognize the absurdity of their obsessions, but are enslaved by their power and rendered thoroughly miserable by their domination. To this group of symptoms, the name psychasthenia is given.

A fourth type of patient presents evidence of disturbance of function in those internal or external bodily areas under control of the vegetative nervous system. Thus, we may encounter gastro-intestinal symptoms, such as nausea, vomiting, flatulence, diarrhea; or cardiac, as palpitation or precordial oppression; or respiratory, as in nervous dyspnea; or in the skin sweating or various vasomotor manifestations. With these symptoms there is an anxious, fearful, apprehensive emotional state, together with a subjective feeling of general muscular tension. Here we use the name, anxiety neurosis.

These four groups, so briefly sketched, are not clear-cut. They overlap. Patients fall into such groups as the predominance of their symptoms entitles them. A neurasthenic patient may have certain hysterical manifestations or a psychasthenic may and often does show components of anxiety neurosis. Finally, patients with any type of organic disease, often exhibit various psychoneurotic trends, which may produce their chief distress. The characteristic features of the psychoneuroses, then, are twofold; the psychic, composed chiefly of painful emotions such as fear, anxiety, apprehension, and a very large and diverse array of bodily complaints.

*Read before the Medical Association of Georgia, Savannah, Georgia, May 19, 1932.

Patients suffering from the psychoneuroses are not rare. They are extremely common. They frequent the offices of all physicians, no matter what branch of practice. They are not mentally deficient; on the contrary they are frequently outstanding citizens in their communities. Contrary to what their friends and often, alas, their physicians tell them, they do not imagine their ills. Their disabilities are real, and it is important that physicians make untiring efforts to understand the mechanism of these disorders, as it is only in this way that aid will be effective, and useless, absurd, or even injurious and painful misdirected, treatment applied.

Many names have been used to designate these disorders. This fact led a recent English author to speak of the "terminology of inexactitudes," when listing such non-descriptive terms as nervous temperament, nervous breakdown, nervous disability, nervous weakness, and a host of others. To achieve clarity of thought and precision of meaning, therefore, the name psychoneurosis appears to be advantageous.

The Role of Heredity

Heredity provides the soil upon which will flourish a very considerable percentage of the cases. In hysteria, Bowers found that 80 per cent revealed a family history of insanity, epilepsy, chorea or alcoholism, while in psychasthenia 75 per cent fell heir to neuropathic taint. Studies in heredity show that the inheritance of defective nervous stability or resistance appears to follow definite principles, as truly as does external form and color. Draper has formulated a useful conception when he speaks of an individual as composed of four panels, the anatomic, the physiologic, the immunologic and the psychologic. Inherited defects in any panel predisposes to corresponding impairments. As Draper puts it, it is as important to consider what sort of man the disease has got as what sort of disease the man has got. There seems, therefore, to be no doubt that patients who suffer from psychoneuroses were most unfortunate in their choice of ancestors.

The Role of Environment

Environment is a comprehensive term intended to include all of the forces which play upon an individual from the hour of birth. These forces are as various and numerous as the daily life of the individual can furnish. Not alone the physical surroundings, but the

experiences, problems and conflicts as well, are comprehended.

It is precisely at this point that controversy has arisen concerning the mechanism of production of symptoms. Freud and his followers, basing their conception of the origin of symptoms upon their belief in infantile sexual trauma, have developed an intricate and involved metapsychology incapable of adequate scientific demonstration. Aside from the many objections which have been raised against the acceptance of Freud's theory as a comprehensive explanation, there is one deterring argument admitted even by the votaries themselves, and that is its impracticability. It seems that the successful Freudian psychoanalyst must undertake a three year course of intensive application and training for his work. Thus prepared and perfected in the art, the unraveling of the complexes in each patient must take his undivided attention for six months to a year or longer. It is further agreed by the high priests of Freudianism that less than a dozen psychoanalysts in America are capable of administering the rites and thus achieving cures.

More intelligent and convincing are the views of Alfred Adler who attributes the development of the types of reactions in the psychoneuroses to feelings of inferiority. He postulates three outstanding problems which confront the young: (1) Ambition to mix with and be accepted by others—the problem of social relationship; (2) The problem of occupation—to be useful as against being useless; (3) The problem of sex.

Children handicapped by heredity or by organic disease or physical defects of any kind, or both, develop inferior feelings when confronted by these major problems of life. The results are abnormal reactions which we call symptoms.

According to Adler unfavorable environment may result in three outstanding types, leading eventually to the development of psychoneurotic symptoms: (1) The spoiled child, wherein he is made dependent upon others and leads a parasitic existence. Later, when he attempts to stand alone and face his problems, he feels his inferiority and reacts by the development of symptoms; (2) The child made to face problems before adequate preparation; (3) The hated child, who develops defensive attitudes and is always in a situation of conflict. The symptoms in general do not arise suddenly, but have a long period of development which can often be traced back to childhood.

These remarks on environment are necessarily incomplete and fragmentary but perhaps serve to indicate certain important spe-

cific forces which impinge upon developing personalities and play a definite role in the production of symptoms.

Interrelations of the Emotions, the Vegetative Nervous System and the Endocrines

That there is a very definite relation between emotional states and those physiologic activities controlled by the vegetative nervous system, there is abundant proof. It has been a good many years since Cannon conducted his well-known experiments on cats and demonstrated that such unfavorable emotions as vexation, worry, and particularly anger and fear, were capable of inhibiting salivary and gastric secretion as well as alimentary motility. Alvarez in his delightful little book, "Nervous Indigestion," has furnished abundant clinical proof of this relation between emotions and the functions of digestion. Crile, a pioneer in this field has done much to popularize the knowledge of the effects of emotion upon bodily function as exemplified especially in neurasthenia and anxiety neurosis. This is particularly comprehensible in the case of fear which conditions the organism for flight or fight. In either case the body is made ready for a tremendous expenditure of energy. The heart beat is quickened, the voluntary muscles become tense, blood is shunted from the viscera to the muscles, digestive activity is inhibited, sometimes the contents of bladder and rectum are evacuated to lighten the load and there is greatly heightened activity of the thyroid and adrenal glands. In primitive life the energy thus prepared was duly expended, but with the advent of the repressions and conventions of so-called polite society, no longer was the relief of activity obtainable. Hence, the palpitations, indigestions, tremors, hyperthyroidisms, resulting from this original indispensable mechanism. Such is the penalty of civilization.

It is of practical interest to consider the nervous mechanism responsible for many cases of distension of the stomach and bowels with gas. According to Alvarez, absorption of gas from the bowel by the blood is constantly taking place, especially in the small intestine, on account of its better blood supply. Conversely, there is an excretion of gas from the blood stream into the bowel. Many observers have noticed that there is a tendency toward the production of a balance between the tension of various gases in the stomach or intestine or intestine and the blood. Particularly important are the large amounts of nitrogen which diffuse into the bowel but do not readily pass back again and must be expelled from the anus.

In cases of anxiety neurosis, marked degrees of flatulence are often seen. In individuals subject to fear or mental anxiety as, for example the dread of a surgical operation, gas is a prominent symptom. As Alvarez remarks: "The flatulence of nervous persons might be due, at least in part, to upsets in the gas exchange of the bowel, associated with an internal blushing and blanching" of the vessels. As the conditioning of the body for fight or flight, as has been shown, entails vasoconstriction in the mesenteric area, a blanching undoubtedly occurs followed by flatulence, often sudden or severe. As these symptoms are often misinterpreted by patients and by physicians as indicating organic disease, this redoubles the fear and a vicious circle ensues.

Dysfunction apparently primary in endocrine glands may produce striking psychoneurotic symptoms. Those occurring in hyperthyroidism are well known. Within the last few years it has been shown by a number of observers that hyperinsulinism may be the sole cause of very dramatic behavior, such as nervous irritability, anxiety, weakness and fatigability, tremor, loss of emotional control and other manifestations decidedly reminiscent of psychoneuroses. The low blood sugar is diagnostic. Heyn has, within the past month, reported such a case in detail.

Fundamental Instincts

Self preservation and the continuation of the race are the two fundamental instinctive reactions of all animals. In man this implies the struggle for existence in such of its phases as happiness, satisfaction, supremacy, approval of the herd, financial success, as well as mere food and shelter, in addition to the problems of sex. The blocking or diversion of these instinctive reactions results in emotional conflicts with the result that characteristics nervous symptoms may appear.

Organic Diseases and the Psychoneuroses

It should always be remembered that psychoneurotic symptoms are frequent in many organic diseases before diagnostic evidences of such diseases appear. Tuberculosis is one example, certain types of malignant disease another. Encephalitis may produce a typical neurasthenic picture. Many frank psychoses masquerade for a time as psychoneuroses. Neither should it be forgotten that psychoneurotic patients are as subject to the various ills of mankind as their more stable brethren. Finally the emotions aroused by illness from any cause, or by contemplation of surgical operations, are often productive of more or less distressing nervous symptoms.

The psychoneuroses for their development

require a favorable soil. This is furnished in a large percentage of cases by unfavorable heredity. In a smaller percentage, by various types of physiologic deficiencies, such as dietary or endocrin, or by pre-existing disease, infectious or non-infectious. Reynolds found impairment of normal physiological function

of the body an etiologic factor in 42.5 per cent of 200 cases. Physical injuries leading to traumatic neuroses should be considered in this category and are of particular interest to railroad and industrial surgeons. In individuals thus conditioned, emotion, particularly fear, in some guise, or interference with the fundamental instincts of self preservation and sex life, are the important effective causes. These causes extend back almost invariably to a very early period of life—that is, to infancy or early childhood. Symptoms develop gradually, reaching their zenith as a rule during puberty or early maturity. A case of pure psychoneurosis appearing for the first time after the age of 25 is rare and suggestive of other disease.

The feeling of inferiority in response to unfavorable environment as described by Adler is doubtless responsible for the development of many cases.

The mechanisms so elaborately worked out by Freud, may be operative in a certain number, but certainly not in the majority. Because of the frequency of psychoneuroses, the degree of misery they bring and the all too common mistakes in diagnosis, it is of the greatest importance for all physicians to obtain as clear an insight as possible into the mechanisms responsible. Many patients would then be spared useless and sometimes crippling operations, and much useless effort in fantastic endeavors would be obviated.

FUNDAMENTALS OF ELECTROCARDIOGRAPHIC INTERPRETATION

In the concluding number in his series on electrocardiographic interpretation, J. Bailey Carter, Chicago (*Journal A. M. A.*, October 29, 1932), discusses A-V nodal rhythm, escape, coronary occlusion, myocardial damage, effects of digitalis, prognostic significance of T wave negativity, congenital dextrocardia, and the dying human heart.

THE OCULAR MANIFESTATIONS OF NEURASTHENIA*

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"Ocular Neurosis" would be a better title for this paper, for the reason that it would include true neurasthenia, nervous asthenopia, hysteria, defense reactions and borderline cases of malingering.

The many symptoms of these neuroses so overlap, that it is difficult for the average doctor, certainly the oculist (unless he has an intimate understanding of the subject), to properly diagnose, classify and treat the ailment.

I often feel, after I have determined that the patient is neurotic, that I have not properly understood his complaints, and that I have not done everything within my power to rule out all of the factors which would explain the numerous and complicated symptoms. Subconsciously there is an admission of failure, and for that reason I am not sure of my diagnosis until I have eliminated all factors (often with the assistance of my medical and psychiatric colleagues) and have repeatedly checked my examinations.

The symptoms of ocular neurasthenia have been so admirably arranged by Wildbrand and by de Schweinitz, that I make no apology for quoting from these well known authors. The subjective symptoms are "headaches, particular throbbing in the brow and temples, occipital distress, pain in the back of the neck and spine, vertigo, muscae volitantes, defective accommodation, intolerance to light, and improvement in vision in the dusk and by the wearing of tinted glasses. Any attempt at concentrated vision is followed by a rapid disappearance from view of the object which the patient attempts to regard. There are diminution of central vision, sudden attacks of obscuration of vision, processions of scotomas, visual hallucinations, lack of fixation of the optical memory images, persistent and confusing after images, color vision; and objectively, a peculiar alteration

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of the visual fields—the so-called fatigue contractions.”

What an array of fantastic and bizarre complaints!

A woman of excellent circumstances, whom I had formerly seen for minor eye complaints, came complaining of seeing ribbons of light when looking through the wind shield of her car when driving at night. My examination showed no change in her glasses, there was no muscle imbalance, the pupillary responses were normal, as was the fundus picture in every detail. I explained to her that the examination did not reveal any cause for her complaint, and suggested that she refrain from driving in the evening. She retorted that inasmuch as her husband, who had lost one eye from a corneal degeneration and the other eye was now early involved, enjoyed driving at night, she did not wish to deprive him of that pleasure.

Later, as the symptoms were unimproved, a field examination was made which showed eccentric contraction for form and colors, as well as relative scotomas for red and green—very suggestive of neurasthenia. Giving the patient the benefit of any doubt that an organic change might be developing in the optic nerve, I made repeated field studies, as often as three times a week for two weeks, and at each examination there was a definite variation. At one examination, the form fields had contracted to the 10 degree circle, and were constant at varying distances even at two meters. Such tubular fields being characteristic of ocular neurasthenia, made me confident then of my diagnosis, and I so treated her in various ways, including the application of a strong galvanic current applied to the temples, but the results were discouraging, both to the patient and doctor. The husband was now quite disturbed as he, being disabled, was largely dependent upon his wife's eyes. He explained that at home she would run into familiar pieces of furniture, which caused bruising of her limbs, and that recently she had complained that her side vision had failed, that is, she was not able to observe him when he was sitting next to her in the car.

From the frequent examinations of the fundus, I imagined that I could detect a progressive palor of both discs, and with the feeling that an optic atrophy might be developing under my own observation, I sought neurologic and medical consultation, requesting especial attention to the hypophysis and to the sella turcica on x-ray examination.

All examinations, thoroughly and painstakingly made, were negative. When confronted with the statement that she was physically sound, and that her eyes were likewise good, and that she had become nervous and upset from an anxiety concerning her husband's condition, she accepted the verdict calmly. After a few consultations with her physician (thanks to his sound reasoning and his unfailing sympathy and encouragement) the patient phoned me early one morning exclaiming with glee that her sight had suddenly returned and that again she had full vision.

These anxiety neuroses, as was typical in this patient, are common. They may be compared to certain phobias, and in ophthalmology the fear of having glaucoma or cataracts, is at times more difficult to treat than the disease itself.

A certain proportion of ocular neurosis in the young and not infrequent in the middle-aged, like other body neuroses, are due to sexual disorders and perversions. Greenacre, in her admirable dissertation on “The Eye Motive in Delusion and Fantasy” calls attention to an eye-complex among those suffering from mental disorders, and quotes Ernest Jones, who believed that the eye is commonly a phallic symbol. Under modern life we may believe that the eye will develop a tolerance and an immunity against such sexual reflex emotions. A linking of the eye complex with disorders and conflicts of sex life, is a much more frequent occurrence than most of us believe. Rarely does the patient feel at liberty to unburden himself to the oculist, mostly because of our unaccustomed and self-embarrassed way of approach. Indeed such problems do not altogether belong to our specialty, but we should at least be able to suspect and direct.

A school boy, aged 17, had for two years been unable to use his eyes for study. In taking an extensive history, he especially complained of having horrible dreams, of spots constantly floating before his eyes and of continuous neck and back pains. He had consulted four oculists within two years, and each one had prescribed glasses. The youth looked sick, and the father, who was now quite concerned, said that the boy was rapidly becoming a nervous and a mental wreck.

My eye examination was negative in every detail, except for a negligible refractive error, which I felt had no bearing upon the case. My suspicion was aroused that the case was one of sexual neurasthenia, and I determined to get at the bottom of the case if possible. I first advised that all glasses be discarded. I suggested to the father that temporarily the boy be withdrawn from school, that he be kept out of doors as much as possible, that he be encouraged to follow his favorite sport (hunting) to an extreme, and that in two weeks he should return for another examination.

The symptoms had not improved, but happily I had gained the boy's confidence and friendship, which I put to excellent advantage, for I obtained from him a confession of most unusual habits which bordered upon sexual perversion. Several serious talks and ex-

planations about simple physiology were given him, and with the assistance of a sympathetic father and the co-operation of a sensible rural practitioner (who proved to be a good psychologist) the boy is well on to recovery.

I learned a great deal from this patient, which I have put to advantage in others:

(1) That the doctor must be more than an examiner; he must have the sympathetic understanding of the frailties of youth; he should be considerate of the patients' complaints, showing such an interest, that he immediately gains their respect and confidence; and:

(2) That eye glasses, eye exercises and collyria, all of which this patient had, won't do much good even when prescribed for psychologic reasons. Such procedures may be the easiest and quickest way to make an examination, collect a fee and dismiss the patient, but it is not the right way. I have found that a careful history, a thorough examination, the correcting of errors when present, and frequent explanations and talks of encouragement will not only help such patients, even though much time is consumed, but that it will bring reward to the doctor in many ways.

From our experience with war neuroses, so-called shell-shock cases, I believe that we may well apply many of the principles which led up to our understanding of them, to similar cases (in a modified way) in private practice.

We were led to believe by the psychiatrist, that in many of these cases of war neuroses, the soldier apparently normal in the preparation for battle, cracked in the actual conflict. He encountered an "intolerable situation" which he could not face, a defense reaction set in, and he was carried off the field a raving maniac or led back blind from a psychic influence.

Now there are battles going on every day in the minds of many unhappily mated people, and one way in which they can protest or appeal from an "intolerable situation" is through a defense reaction of some sort, call it backache, headache, heartache or eye-strain, but in truth it is a functional neurosis.

From the large student population in Atlanta, I see every year many young men and women with various eye complaints. Many have abnormal changes in their ocular muscles and refractive systems which can be readily corrected by glasses. Some very few are laggards, educational slackers. Others, who may be ambitious and serious students, break down and commonly eye troubles are their chief complaints.

The eye examinations of this class are negative, or rather their symptoms and complaints are far out of proportion to the findings. A confidential talk with the dean or a teacher, or with the roommate or a friend will often reveal a reason, such as some social conflict, a disappointment, remorse from some indiscretion, a harsh work or reprimand from a superior which has caused embarrassment, particularly if the patient is of a sensitive nature. In many cases the situations can not be tolerated, although we might consider them trivial. As a consequence then, this tiny spark of a mental conflict is sufficient to set off an emotion, which if not corrected, may lead to more serious troubles later in life. Even in childhood one finds juvenile conflicts, as the following case will illustrate:

A normal, healthy, eight-year-old boy had fallen behind in his school work, and when his mother endeavored to correct the trouble by extra home study, the child rebelled, complaining that his eyes would hurt. Indeed, he rubbed them so thoroughly while doing his lessons and they became so red, that he could not use them. I was asked to examine him. The examination was made under homatropine drops and in every particular the eyes were found normal. With a friendly slap on the back, and with the remark that "your eyes are all right", he was dismissed. His complaint persisted, and in desperation the mother again appealed to me for assistance and now demanded relief. A second eye examination was made then under atropine drops and again my findings were negative. I appealed to a colleague for an opinion, but he could offer no assistance. This time I made no comment to the patient, but wrote a prescription for a pair of plain glasses, specifying a large conspicuous nickel frame, and requested the mother to see that the glasses were worn constantly. The relief was magic. All symptoms vanished and within a short time he was back to his usual scholastic standing, and when finally the novelty had worn off the glasses were discarded. At a later date it was learned that his little school sweetheart had recently put on glasses, and the fact that he could not imitate her put him into such a mental

turmoil that he could not readily adjust himself, hence a "defense reaction", which ended in obtaining his objective—glasses. A sensible talk to the child would have accomplished the same result, whereas the giving of glasses was a needless expense, but in this instance I trust that I will be pardoned for my inconsistency, for the patient was my son.

Cases of ocular neurosis in conjunction with other symptoms of general neurasthenia, without demonstrable cause, may be early manifestations of some obscure lesion of the central nervous system, especially in brain tumors.

My first experience with such a case happened many years ago, when I was asked to see in consultation a man who, besides having many symptoms of general neurasthenia, complained of an inability to use his eyes in editorial work, and also that he was conscious of having fleeting attacks of obscured vision. There was no cause that I could determine for his complaint, except that, on more than one examination, I picked up a relative scotoma for red and green in one eye. Many months later, more definite localizing symptoms, including changes in the form fields, were noted, which led his doctors to suspect a frontal lobe tumor. This was confirmed by an operation, performed by the late Dr. Charles E. Dowman.

I have seen also, several cases with obscure ocular complaints following attacks of influenza, which in reality must have been mild attacks of encephalitis lethargica. The chief objective finding at first was a low grade imbalance of the ocular muscles, developing later into a paresis, undoubtedly of nuclear origin.

A gentleman of literary tastes, with no special occupation, moved to Atlanta to spend the winters near his daughter. He had made it a practice to have his eyes examined yearly, for he had a high error of off-axis mixed astigmatism, and years ago he was cautioned by a distinguished oculist never to use his eyes for too long a time. This advice he had followed meticulously, and in a measure it was responsible for his retirement from a career as a writer. He now felt that he was becoming a nuisance to his family and recently he had developed melancholia. He frequently wore his correction in tinted glasses, which gave him relief, yet, from his own admission, they added to his eye consciousness. His glasses were correct, his muscles functioned in a normal manner, both for distance and near work, and my only positive findings were a few vitreous opacities and a moderate degree of sclerosis of his retinal vessels. His medical examinations were likewise negative, except that he was overweight due to his sedentary habits.

He returned frequently, complaining that he could not read long, chiefly through fear, as I felt, that he would produce eyestrain, as he had been previously

warned. I was convinced that his chief trouble was an anxiety neurosis and I attempted in a very adroit way to explain the situation to him, finally leading up to the suggestion that he find a hobby which, if successful, I felt would not only interest him and occupy his time (for he had no resources), but it would make him use his eyes.

The genealogic investigation of his family especially appealed to him, and after much coaxing and encouragement, and with the assurance that this extra work would not injure his eyes, he is now happy in his new work and thoroughly unconscious that he has eyes. Incidentally, he has discarded his tinted glasses.

I mention this case in detail for it is typical of many others that we constantly see, where an ocular neurosis, as indeed neuroses of other organs, was brought about by a careless or an unintentional remark made by the doctor.

A well known teacher of ophthalmology said that oculists produce more neuroses than they cure. He had in mind the catering to the whims and fancies of many patients by the giving of many drugs, the frequent changing of glasses and the unnecessary prescribing of glasses for minor errors.

An attempt to defend or deny this statement would precipitate a riot, and the controversy would only bring joy to a non-professional element.

As to the treatment of ocular neuroses, I can add but little. Doctors have different ways of approach and varied methods of attack.

Some are born psychologists, which makes the task easy; but one should have more, by which I mean an adequate training in medicine and ophthalmology in order to be able to separate the organic from the functional complaints. His work with neurotic patients should include a painstaking history, and a thorough examination. Hurried, superficial examinations and lack of interest spell ruin. The doctor should be more than an examiner, he must understand human nature, he must be sympathetic, considerate, and yet so firm that he will gain the confidence and respect of the patient. I imagine that the real psychiatrist will tell you that common sense plays a big part in the successful management of all neurasthenics.

De Schweinitz, *Diseases of the Eye*. 10th ed. p. 482.
Greenacre, P., "Eye Motive in Delusions and Fantasy,"
Am. J. Psychiat. 5: 553, 1926.

CARDIAC MANIFESTATIONS OF THE PSYCHONEUROTIC STATE*

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The following discussion refers only to those disorders of the heart and circulation not accompanied by structural change. We are dealing with a study of emotions and must recognize the fact that hysteria, anxiety, defense reactions and obsessional states are as definite clinical entities as typhoid fever or pneumonia. Without this recognition the physician lacks the equipment necessary to treat his patients.

Often in childhood the soil is prepared for the implantation of a cardiac neurosis. The child hears stories of the broken-hearted princess and later reads in prose and poetry vivid descriptions of functions of the heart which it does not possess and eventually comes to believe that a disorder of the heart is the only condition that can cause sudden death.

Organs under the control of the vegetative nervous system are normally in a delicate state of equilibrium between the inhibitor and accelerator factors without involving the conscious mind. This condition is subject to psychic influence and any stimulus or condition which lowers the nervous reserve may bring into the field of consciousness the action of organs previously unnoticed or focus the attention on any part of the body.

The emotional stability of each individual is primarily dependent upon his heredity and psychogenic stimuli will have an effect in direct proportion to this nervous threshold. Business worries and domestic incompatibilities are usually the precipitating factors for nervous disorders in those with a poor hereditary background. Dynamic individuals or those with an inherited low nervous reserve continue to use an excessive amount of energy without sufficient recuperation. Finally the point of nervous depletion is reached where the influence of previous factors manifests itself. Then judgment becomes warped, wor-

ries, doubts, fears and anxieties appear and because of this hypersensitiveness new sensations arise which they are unable to interpret. Travers Smith aptly states, "Man consciously and unconsciously, prefers a somatic interpretation of his suffering rather than the admission to his doctor, or even himself, that he is not master of his mental fate and captain of his psychological soul."

Given the proper setting, functional disorders of the heart may result from a number of direct causes. A casual remark by an insurance examiner that a murmur is present, that the heart skips a beat, or advice given by the family physician that the heart should be watched may initiate a life of chronic invalidism. On the other hand, the patient may assume the presence of a serious lesion because he is examined by more than one physician. During emotional stress of any kind the heart is the organ most likely to introduce itself to consciousness. This may appear as a fluttering or sensation of pressure in the region of the heart, precordial pain, throbbing in the vessels of the neck or a feeling of faintness. Then follows the thought of heart disease, fear of sudden death or invalidism and a vicious circle is established.

It is unwise to attempt a detailed classification of functional heart disease but some of the common clinical varieties may bear closer observation.

PREMATURE CONTRACTIONS (EXTRA-SYSTOLES)

Premature contractions constitute the most common functional disorder of the heart. This condition may exist without the knowledge of the patient until he is told of it by a physician or a "skip" or "flop" may have been noted. A common complaint is "my heart turns over and then stands still." In young individuals premature contractions are usually of psychic origin. White found the average age of patients with functional premature contractions to be 43 years, as compared to 58 years when due to organic heart disease. Focal infection and the excessive use of coffee or tobacco are often precipitating factors so extra-systoles cannot be considered of pure functional origin. Since this arrhythmia often occurs in serious organic disease of the heart, great care must be taken when found in patients over 50 years of age.

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NEUROCIRCULATORY ASTHENIA

Although described prior to the War between the States, neurocirculatory asthenia became an important clinical entity during the late war and was discussed as "effort syndrome" or the "irritable heart of soldiers." This term has been dropped since it was soon recognized that it was as much an emotion as an effort syndrome. This disorder has been divided into the constitutional and non-constitutional types. In the former there is a history of familial nervous instability, inability to hold jobs and, in many instances, the individual has already found the level of activity that he can tolerate. The non-constitutional type occurs in those who have mild nervous instability, but are able to pursue an occupation with some degree of success until some factor, often an acute infection, brings the latent instability to the surface. The prognosis is much better in the latter group.

The common symptoms of neurocirculatory asthenia are breathlessness on exertion, vertigo, syncope, lack of endurance, slight elevation of systolic blood pressure, precordial pain, headache, desire to take deep sighing breaths, hypertonicity of voluntary muscles and frequently hypersensitiveness to coffee. General nervous instability is quite noticeable. When superimposed on a mild organic lesion, these symptoms may be mistaken for early congestive heart failure. The prognosis for a long life is good since there is no definite evidence that it predisposes to structural changes in the heart.

In the differential diagnosis, hyperthyroidism, pulmonary tuberculosis, anemia and syphilis may cause confusion.

PAROXYSMAL TACHYCARDIA

Paroxysmal tachycardia is the third most frequent cardiac disorder of psychic origin. Although produced at times by focal infection and the excessive use of tobacco and coffee, most cases under 50 years of age are of nervous origin. Suppressed fear, anxiety or both are the etiologic factors to be brought to light. Tremor, rapid respiration, vasomotor instability, diuresis, nausea, vomiting or diarrhea may accompany the tachycardia. Subjectively, the patient complains of palpitation, a fluttering sensation in the chest or a choking giddy sensation. Many authorities are of the opinion that the overexertion caused by paroxysmal tachycardia may aggravate an existing organic lesion, especially if inflammatory in nature. An attack coming on suddenly may last from a few seconds to several days and end abruptly. The pulse ranges from 120 to 200 beats per minute. Paroxys-

mal tachycardia is especially liable to be considered of organic origin if accompanied by a functional murmur.

PAIN

Slight precordial pain or distress is often the sensation which directs the patient's attention to the heart. Precordial pain is synonymous with angina pectoris in the mind of the laity and perhaps that is fortunate if it will lead them to a physician who will make a painstaking examination. Not only is it essential to rule out pain from organic disease of the heart but pain from extracardial factors must be considered. In middle-aged or elderly people it is not uncommon to find such pain produced by hypertrophic spinal arthritis. Pericardial and pulmonary lesions, disease of the ribs, mammary gland and subcutaneous tissues must be considered. One patient with heart fear palpated the precordium so frequently that she experienced pain from actual trauma of the soft tissue.

Precordial pain of organic origin occurs more frequently in elderly males, is induced by exertion and originates not in the region of the heart, but in the substernal region, in the arm, neck or epigastrium. Precordial pain of psychic origin occurs more frequently in young females, affects the apex or upper half of precordium. Its character is influenced by popular conception of disease, and is dependent on mental state rather than effort, although emotion may precipitate an attack of angina pectoris.

CARDIAC NEUROSIS

The dread of heart disease may develop in an individual because of the tragic death of a relative or friend. Heart disease may have been suggested to him by a friend because of some insignificant symptom which he no longer remembers or the innocent but unwise remark of a physician. Here there is a complete lack of symptoms. A careful examination followed by reassurance is all that is necessary.

OTHER FUNCTIONAL DISORDERS

Sinus arrhythmia usually occurs in young nervous individuals, either spontaneously or following an infectious disease. Digitalis and forced respiration aggravate the arrhythmia, while exercise decreases or abolishes the irregularity. No treatment is required.

The origin of functional murmurs is obscure. In the absence of a history of rheumatic fever and positive physical findings indicative of heart disease, such as enlargement of the heart, usually the findings should be ignored. Cabot even questions whether mitral

regurgitation can be diagnosed clinically. Functional murmurs usually decrease in intensity or disappear entirely if the patient is changed from the recumbent position to the upright or upright and bending slightly forward. Diastolic functional murmurs rarely occur, but when present are usually heard at the base and may be confused with the murmur of aortic insufficiency. However, functional diastolic murmurs usually fall into the group of cardiorespiratory murmurs and with careful examination can be recognized as such. Fainting (cerebral ischemia) is usually the result of psychic disturbance of the inhibiting action of the vagus nerve on the heart or the sympathetic regulation of the splanchnic vessels.

Simple heart consciousness and palpitation as a rule present little difficulty in diagnosis. The characteristic history in an excited or hypersensitive individual and the absence of positive physical findings leave little doubt regarding the etiology.

TREATMENT

A thorough diagnostic study including all indicated laboratory procedures must be made before treatment is to be considered. Special attention should be given to the patient's environment as possible causes of psychic stimuli.

Perhaps it would be wise first to subject the medical profession to psychoanalysis. Almost every physician is subject to the subconscious fear of sudden death of a patient said to have an unsound heart. This tends to lead to a guarded or bad prognosis if there is any doubt concerning the condition of the heart and the patient is instructed to "watch the heart" or "never run." The physician should be the last person to precipitate a neurosis.

Having failed to demonstrate organic disease of the heart and having found evidence of nervous instability, the next duty of the physician is to explain tactfully to the patient the mechanism of nervous disorders. Treat the patient as an intelligent human being and be careful to avoid arousing his resentment or all hope for helpful reassurance is lost. Accept his statements as facts, assure him that his complaints are not products of an overactive imagination, but are definitely abnormal conditions.

In most instances more reassurance than merely the spoken word is necessary. Let the patient convince himself by being able to take more exercise; one cannot hope successfully to reassure a patient that he has a normal heart and in the same breath impose physical restrictions which the average layman knows are customary in organic heart disease.

Prescribing regulated exercise serves the double purpose of convincing the patient that his heart is able to do some work and of strengthening the heart muscle.

It is often necessary to readjust the patient's habits of living before the nervous reserve can be replenished. A regular time for meals, adequate time for ingesting the meal and a short rest in the middle of the day has a remarkable effect on some patients. Business worries are sometimes fancied, but if real a philosophical attitude will lessen the burden. Domestic incompatibilities offer the greatest problem to the physician and little can be accomplished without cooperation of all concerned.

Any functional disorder is benefited by keeping the general condition of the body at the highest possible level. To accomplish this the patient must eat an adequate amount of a well-balanced diet; the food must be properly digested and some physical exercise and recreation obtained. Sound sleep in sufficient amount to compensate for the energy lost in daily activity is necessary and all foci of infection should be removed.

Drugs should play an insignificant role in the treatment of functional disorders of the heart. The patient must not be allowed to pin his faith in a bottle of medicine and forget the main issue. Cardiac stimulants should be avoided. Some simple sedative is sometimes necessary at the beginning but should be discontinued as soon as possible. A few cases of premature contraction will respond only to quinidine.

Patients with neurocirculatory asthenia have a low tolerance for exercise and emotion. Carefully graded exercise has little effect in raising their tolerance. Using carefully graded exercise as the means of increasing their endurance, Lewis was able to return 41 per cent of the English soldiers with "effort syndrome" to duty but his results could not be duplicated in the American army. If the patient has not already found the level at which he can function without discomfort, it is wise to explain to him that each individual has his particular limitation and that he is no more an inferior type because he lacks the endurance of a pugilist than is a lawyer, teacher or physician. Once they lose the feeling of inferiority they continue happily in their own channel.

THE GASTRO-INTESTINAL MANIFESTATIONS OF THE PSYCHO-NEUROTIC STATE*

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On a number of occasions during the past year or two our attention has been called to the importance of a careful study of the personality of the patient and of his mental reactions to the environment and experiences of his life. This injunction can, with profit, be followed by all of us.

As practitioners of medicine grow away from the type of the old time family doctor, they lose their position of confidant and counsellor. This changed position tends to make them unaware of the experiences and thoughts of the patient. They know but little, if anything, of his joys and sorrows, his apprehensions and fears, his anxieties. Lacking both this information and the inclination or time to acquire it, they have but one course left: to ascribe the patient's complaint to some organic (structural) disturbance which they treat sometimes symptomatically, sometimes specifically (they think), and sometimes surgically. Often the benefit, if any, derived under these circumstances is due largely to chance or to the hopes of the patient, and is generally but transient in character.

The term psychoneurosis, like the term psychiatry, has acquired an unpleasant and distasteful significance. Unlike psychiatry, however, it has not been able through usage and the passage of years to secure for itself a kindlier feeling. To state to a patient that he has a gastro-intestinal psychoneurosis is almost equivalent to insulting him. For this reason the physician prefers, if possible, to establish the diagnosis of organic disease. Accuracy of diagnosis always depends upon the manner in which one goes about an interpretation of the patient's history and the results of the examination. In this interpretation

the first question to be answered is this: in what way is the gastro-intestinal tract functionally deranged? Unless one begins his analysis from this standpoint it is quite probable that he will miss the correct organic diagnosis, if such disease be present. This is particularly true of the gastro-intestinal tract, for here organic disease seldom manifests itself except through functional disturbance. We find in this fact the explanation for the infrequent diagnosis of early gastric carcinoma. It is true that the functions of the gastro-intestinal tract are relatively simple. The stomach, for example, has but two primary functions, motor and secretory. Stimuli for control of these functions are received through the autonomic or sympathetic nervous system. These stimuli come, however, from many sources. They may arise in the stomach itself, in the mouth, esophagus, or other part of the gastro-intestinal tract; from other viscera, or from the brain and central nervous system. Again, its proper function depends upon a satisfactory supply of blood which, in itself, is influenced from as many sources as is the motor or the secretory function. Hess has shown the interrelation of autonomic and psychic function. This interrelation which allows them to influence each other introduces an indirect cerebral control of gastric function and similarly the function of all other parts of the gastro-intestinal tract. Under ordinary conditions this control is inactive or, if active, is beneficial. In the psychoneurotic state it is possible for adverse influences so to alter the function of the gastro-intestinal tract that symptoms may arise which, to the patient and at times to the doctor, suggest the presence of structural defect. These functional disturbances represent the gastro-intestinal manifestations of the psychoneurotic state.

Examples of the simpler forms of this psychic influence are met daily in ordinary emotional reactions. We see the dry mouth of fear, the excessive salivation induced by the odor of savory foods, the diarrhea of unusual excitement, or constipation from the same cause. These isolated instances of psychic influence do not ordinarily lead to the development of a continued condition. It

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is possible, however, when the influence is unusual or the make-up of the individual susceptible, for the effect to be permanent in character, producing therefore a conditioned reflex or psychoneurosis. This is common with the appetite. Cannon and Washburn characterize appetite as a pleasurable mental state which has its origin in an excitation of the mechanisms for taste and smell. Thus, our appetite for a given article of food is dependent upon the pleasurable sensations of previous experiences which are recalled by thought of that food.

Through unpleasant associations an adverse reflex may be developed which completely overshadows the previous pleasurable experiences and, therefore, terminates our appetite for that food. A girl of nineteen, when a child, had an unusual appetite for meats, so much so that her parents had difficulty in getting her to eat any other type of food. Becoming alarmed lest her health be injured, they decided to overcome this situation. Consequently, they took the child to a slaughter house where she was shown the gruesome sights to be seen there. As a result of this experience her appetite for meat was entirely lost and since that time she has been unable to eat any. Another example was offered by a guest whom I had for lunch recently. He immediately and vigorously refused the suggestion of either sweet or buttermilk. When I inquired about this, he explained that as a child he and some boy companions, while walking through a pasture, came upon the carcass of a cow which had been dead for some time. They stopped to inspect this object which was new to them. That evening at supper, just as he was raising his customary glass of milk to drink, his brother remarked, "Don't drink that milk; it is from that old cow we saw today." Since then he has never been able to overcome his distaste for milk.

Psychoneuroses developed from single experiences may manifest themselves in functional disturbance of any part of the gastro-intestinal tract. Other psychoneuroses arise from the continued anxiety state and are the result of a persistent, prolonged, and ineffectual mental struggle for adjustment to a dif-

ficult situation in life; that is to say, there is a disharmony and mental conflict of purpose, wishes, desires, and impulses. That these mental conflicts should have their expression in functional disturbance of the gastro-intestinal tract is not surprising. This system is subject to the widest variations of functional demand. Our food, its preparation, the time and the conditions of eating, all diverge greatly from what is probably normal. We eat when we are not hungry, when we are fatigued, when we are in haste. We eat food poorly prepared or too highly seasoned, and sometimes we eat to excess. These multiple demands upon the gastro-intestinal tract keep it in that condition of irritability or fatigue which makes it peculiarly responsive to psychic influence. If we recall now the two functional activities of the gastro-intestinal tract—musculomotor and secretory—and at the same time keep in mind the fact that the symptomatology of organic gastro-intestinal disease depends almost wholly upon functional disturbance, we can further perceive the gastro-intestinal manifestation of the psychoneurotic state. In normal activity the musculature must maintain satisfactory tone and perform certain rhythmical contractions. These normal activities may be replaced by spasm, atonia, or by altered rhythmical contraction.

Muscular spasm is a frequent psychoneurotic manifestation. In the esophagus there may be that peculiar condition called globus hystericus. The cardiac sphincter may become tightly contracted, giving rise both to pain and to dysphagia. The pyloric sphincter, through persistent contraction, may give both the pain of vigorous muscle spasm and the distress of obstruction to the proper emptying of the stomach. The anal sphincter may remain in such a state of chronic contraction that the individual suffers from habitual constipation. Spastic colitis may be nothing more than spasm due to psychic influence.

Atonia of the gastric musculature prevents its proper contraction with the consequent feeling of weight and heaviness so common in the history of patients with indigestion. Atonia of the intestinal musculature delays the forward rush of its contents and induces

fermentation and putrefaction with the production of gas, distention, and flatulence. Loss of tone of the colonic musculature establishes atonic constipation.

When the psychic influence results in an increase of peristaltic activity colic is the predominating symptom, and there may be an accompanying diarrhea.

Secretory disturbances as the result of psychic influences are quite as common as are motor and, in fact, are generally associated with them. As pointed out, alterations of salivary secretions are most striking. There may also be gastric hyperacidity or gastric hypoacidity, perversion of pancreatic secretion and of other secretions into the intestine. The effect of these secretory disturbances upon digestion and upon peristalsis is quite well known.

A white woman, age 42, came to the hospital clinic. She complained of loss of appetite and indigestion. These had been present for over a year. On further questioning she explained that her indigestion consisted of heavy gastric distress which came on at varying intervals after eating. There was occasional heartburn. She was also disturbed by colicky abdominal pain associated with the passage of gas and constipation. Physical examination did not reveal any signs suggestive of organic disease except for some colonic stasis. She was kept under observation for three weeks, at the end of which time she returned and announced that she was feeling very much better. It was then she revealed the troubled state of mind which previously existed and which she had failed to disclose in previous consultations. Shortly before the onset of her symptoms her only son, in whose welfare she was deeply interested, left home and joined the Navy. Her ideas as to the life he would lead there were not pleasing to her and she was greatly concerned as to both his health and his business and educational preparation for the future. Just prior to her last return to the clinic this son came home on furlough. He surprised and pleased his mother by his striking physical development, his wholesome outlook on life, and the educational program he was following. The relief of her apprehension removed the psychic influence which had manifested itself in the gastro-intestinal tract and she had come back to the clinic to tell us unknowingly the cause both of her illness and of her wonderful cure.

The experience of this woman is but an example of the many ways in which the patient may be involved in mental conflict and of the numerous expressions of this conflict in gastro-intestinal dysfunction. It is variously estimated that from 30 to 50 per cent of patients who present themselves because of digestive complaints are the victims solely of a psychoneurosis.

Summary

The gastro-intestinal tract is controlled by the autonomic nervous system.

The interrelation of the autonomic and the central nervous systems permits psychic influences to alter the functional activity of the gastro-intestinal tract.

Because of the wide variation of demands made upon it the gastro-intestinal tract is especially susceptible to such psychic influences.

The functional difficulties which are thereby established give rise to symptoms similar to the symptoms induced by organic diseases, as these symptom also arise largely from functional disturbances.

The symptoms of this psychic alteration of gastro-intestinal function are the gastro-intestinal manifestations of the psychoneurotic state.

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COMPARISON OF EXOPHTHALMIC GOITER IN BOSTON AND CHICAGO, WITH SPECIAL REFERENCE TO IODINE REACTION

In a comparison of exophthalmic goiter in Boston and Chicago, Willard O. Thompson, Chicago, and James H. Means, Boston (*Journal A. M. A.*, October 29, 1932), found that: 1. The initial height of the basal metabolic rate is the same. 2. The reduction in basal metabolism during the administration of iodine is the same and occurs in the same length of time. 3. The minimum amount of iodine necessary to produce a maximum reduction in basal metabolism is probably about the same. 4. The sex ratio is approximately the same. 5. The age of onset is about the same. These observations suggest that the severity of exophthalmic goiter is the same in Chicago as it is in Boston. The severity of exophthalmic goiter, as judged by the average basal initial metabolism alone, does not seem to vary significantly in many clinics in different parts of the country.

THE SEX ASPECTS OF THE PSYCHONEUROTICS*

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"The time has come, the walrus said,
To speak of many things:
Of ships and shoes and sealing wax,
Of cabbages and kings,
And why the sea is boiling hot,
And whether pigs have wings."

Any adequate discussion of the psychoneuroses must, of necessity, involve most heterogeneous aspects. Even in a symposium as comprehensive as the present only a few can be touched upon. In this particular essay it is impossible even to approach an exhaustive treatise. Some aspect in particular must be picked. The choice made is to switch the emphasis from the sex symptoms to that attitude which should be assumed in approaching them.

A trait peculiar to the average human being is the tendency to hit upon the obvious as the causative agent. This has been true from time immemorial. From this has come most of our popular superstitions. Into the warp and woof of medical history is woven this fallacy. Too narrow, too warped, too hidebound are the attitudes toward cause and effect. Too prone are we to jump into that most common fallacy, "Post hoc ergo propter hoc."

The subject first given me was, "The Sexual Manifestations of the Psychoneuroses." Who can say which is the horse and which the cart? Can one state which is more important in the totality: the foundation or the superstructure? Does the mere fact of antecedence solve the entire question? Medicine tends to be too much ridden by the concrete, the obvious. A little more thinking, and that thinking in terms of relativity rather than cause and effect, could be efficacious.

Life, whether from the standpoint of an isolated tissue reaction or the integration of the whole organism, is a stupendous experiment. Whether it be the formation of scar

tissue in an abrasion of the skin or the arrival at a psychoneurotic reaction is simply a question of biologic degree. So in the psychoneuroses we have fundamentally a biologic defense mechanism: whether associated with constitutional defects or as resultants of the reactions of the integrative mechanisms, the nervous system.

The psychoneurosis is fundamentally a partial regression: an attempt at withdrawal from reality; a return to more infantile or primitive types of reaction. Now sex development goes through certain stages in reaching maturity; this development must start with the infantile type of reactivity; pass through the adolescent period and finally reach full maturity. Hence, in regressive disorders a return to more infantile types of sex reactivity is to be expected. This does not mean that if masturbation or homosexual trends are found as presenting symptoms they are the results of the psychoneurosis. Nor are they the immediate cause. One would not think of thumb-sucking as a cause of feeble-mindedness. These sex manifestations are merely the concomitants of the general regressive trend toward more infantile behavior. This regression in turn is a defensive reaction.

From the time the living organism is extruded from the maternal womb into an environment calling for respiration and a complete reorganization of the circulation until the final exit of such an organism, it is faced with feelings of insecurity. The constant effort is to offset this state of instability. This is what is popularly known as the "inferiority complex". It is universal, present in all living organisms. The defense reactions which are consequently thrown up may be constructive or destructive; assets or liabilities. If such an organism has within a sense of inferiority because of organic defects or imperfect learning how to meet life, how easy it is to fall back upon invalidism or some expression of helplessness as a means of avoiding the impending difficulties! Everyone knows that an inferior dog, when any threat impends, will turn upon his back and whimper. This is a psychoneurotic reaction. With this go a multitude of sex difficulties

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which are simply accompaniments to the regressive trend. The emphasis should be laid on the rehabilitation of the person as a whole and not on these symptoms.

Another type of sex difficulty is the accompaniment of the reaction of the integrative mechanism. The fundamental reactivity of an organism to a state of insecurity is fear. Fear calls for action. In viewing life in general one finds a constant antagonism between the motor or action and the vegetative functions. They cannot be active at the same time. This is the reason for the peculiar structure of the ruminant. Threatened on all sides and a comparatively defenseless animal, it must rely upon running away to maintain its existence. Hence it feeds quickly; stores the food in the first stomach; flees to a sheltered, safe spot; erucates the food and goes through the process of mastication and digestion. Everyone is aware empirically that digestion is impeded or stopped in states of anxiety, worry or fear. Feeding and digestion are vegetative functions. So too the sex act is fundamentally vegetative in character. The fear reaction is antagonistic. It is impossible to consummate sexual intercourse under the stress of fear. Consequently in psychoneurotic reactions in which fear or anxiety is a presenting symptom are found various types of impotence. Whenever the organism, either through an inherent sense of insecurity on a constitutional basis or because of the impact of environment is thrown into a state of conflict, anxiety is a frequent resultant. Anxiety or fear has as its most important component a reaction of the sympathetic portion of the autonomic nervous system which is antagonistic to the proper consummation of the sex act.

The symptoms of sex difficulties found with the psychoneuroses are legion. They are never the entire story; whether the reaction be of the hypochondriacal, obsessive-compulsion, anxiety, or hysterical type. The difficulties lie within the personality. The contributing factors are multitudinous and a study and cure necessitate a broad and comprehensive search of the biologic reactions. The question of the horse and cart is often difficult. The principal, however, is the same.

No matter where the difficulties lie a proper approach means either the building up of the individual's capacities, a fitting of the environment to his needs, or a combination of both. The contributing factors are many: exogenic (toxic or infectious); neurogenic (organic disease of the nervous system); psychogenic (due to faulty habit formation or experiences); and constitutional (inherited or ingrained from birth or early infancy).

A cure cannot be hoped for in terms of adjustment except through a consideration of all these factors. The genito-urinary specialist cannot cure psychic impotence by treatment of the verumontanum alone; the gynecologist cannot cure frigidity by suspension of the retroflexed uterus as his only procedure; the internist cannot relieve ejaculatio praecox or masturbation with drugs alone. It is only through a consideration of the organic, domestic, economic, sociologic, and general psychologic aspects of the problem at hand that success comes.

The lessons to be gathered are these: a getting away from the narrow concept of cause and effect; a broader attitude of relativity; and a consideration of the individual as a whole rather than in parts.

CAUSE OF PRIMARY DYSMENORRHEA, WITH ESPECIAL REFERENCE TO HORMONAL FACTORS

Emil Novak and Samuel R. M. Reynolds, Baltimore (*Journal A. M. A.*, October 29, 1932), point out that many theories have been offered to explain the etiology of primary dysmenorrhea, and many plans of treatment have been suggested. None has seemed adequate, although the importance of psychogenic, constitutional and other such factors in the causation of many cases is undoubted. The immediate cause of the pain, on the basis of the physiologic studies reported by the authors, is almost surely a disturbance of the normal motility factors of the uterine muscle. In general, female sex hormone, or theelin is an excitant and progestin an inhibitor of this motility. Preparations of the urine of pregnant mothers, presumably because of their prolan content, likewise are strongly inhibitory. The inhibitory influence of progestin on uterine motility is removed a day or two before the menstrual onset, and the withdrawal of this restraining factor produces dysmenorrhea in some women, possibly those with such predisposing factors as constitutional subnormality or psychoneuroses. In other cases it would seem that there is an actual imbalance between the theelin and progestin, either quantitative or chronological, or both.

THE TREATMENT OF THE PSY-
CHONEUROTIC STATE*

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We are considering a group of maladies that comprises roughly a third of all that the internist is called to see. These maladies are not to be cured like malaria and syphilis by specific medication, they are not cured like typhoid by nursing care, not like tuberculosis by limitation of activity, not like pellagra by revision of the diet, but if they are to be cured at all the therapeutic agent will be the doctor himself. It will not be through an intermediary, not through the skillful manipulation of an instrument, that the physician will deal with his patient. It will be the physician himself who, by his guidance, by the force of his personality, can, if he be master of the art, restore the patient to health.

Physicians can and do restore sight to the amblyopic, speech to the aphonic, courage to the fearful, comfort to the distressed. A physician may teach his patient to sleep at peace, to digest his food without discomfort, to calm the spasms of the heart, of the intestines, of the bladder; he may bring to wretched, harassed people calm and tranquility once more. All this he may do if he has insight as to what his task is and a way with him as to how to go about it. On the other hand, if he is blind to the vision of therapeutic opportunity that this class of patients opens to him, he may make their case far worse. He may subject them to needless operative procedures, may drench them with needless drugs, may stimulate their fears instead of allaying them, may (to his own financial profit sometimes) maintain and prolong a state of deplorable hypochondriasis instead of leading the patient out of the morass of miseries in which he has been bemired.

Undoubtedly these patients, suffering as they do from inadequacies in their adjustment to environment, from emotional stresses that prove too severe, from doubts, from fears,

from disappointments, from childhood distortions of personality, from faulty habit formation; this great army of sufferers are subject to distress that is often far keener than is the distress of those that have organic disease (and this is something we should never forget). These patients come to us unaware of the nature of their difficulties; they come invited by the prestige of our achievement in other fields. Because we have been able to cure malaria, syphilis, appendicitis, and diphtheria they feel that we should be able to cure them. Unfortunately, our training in the laboratory, the operating hall, the diagnostic clinic, has done little to fit us for wrestling with their problems. We emerged from the medical schools untaught as to how these patients should be helped. Our legacy from the school has been chiefly a profound contempt for all those who, outside the ranks of organized medicine, have successfully dealt with this class of patients. As intern and resident in the hospital we have perhaps come to look on this class of patients as scum, as people to be searched out with witch-hunting zeal and summarily banished as impostors from the hospital wards.

Of course the young doctor entering into practice soon finds that he must change his tune. Functional disorders coming to his office in silks and furs cannot receive the same treatment that they do in the dispensary and the wards. What the school has failed to teach him, the young doctor, if he has a thinking head, soon realizes that he must learn. His academic training having failed him he must learn from the university of life. In proportion as he is gifted with observation, in proportion as he has a heart, in proportion as he has the will to achieve success, he will learn, though through no grace of his schooling, how to deal with these patients.

Of course in a few words I cannot hope to explain how even a single case is managed. I can only set up a few signboards, pointing the way. By diagnostic studies one seeks to separate functional from organic disease. This separation is often at fault. Functional disorder quite generally encroaches far upon the territory of organic disease. We soon dis-

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cover that the major problem in dealing with such diseases as tuberculosis, diabetes and the like is a psychotherapeutic problem. Not only is this true but we cannot forget that success in the treatment of these organic diseases hinges less on the precision of the diagnosis and the therapeutic plan than on questions of the patient's character, his dependability, and on the support and guidance the physician is able to give weak and erring natures. Patients with organic disorders moreover suffer often more acutely from functional complications than from the fundamental disease. There are many such complications. A universal complication of organic disease is fear. Fear, whether vocal and visible, or silent and unseen, is the accompaniment of every disease. Lucretius taught that fear made the gods and fear certainly has much to do with the making of the doctor's career. The practicing physician soon learns that much of his activity concerns the treatment of fear. The treatment of fear is often unconscious. The faith and confidence that the presence of the doctor inspires may prove an adequate specific for fear. Even in dealing with organic disease an unconscious psychotherapeutic not infrequently, is of greater value than is the pharmacologic prescription.

Coming now to those cases that we have definitely labeled as psychoneurotic or functional disorders, it is of the first importance that we should not let our traditional preoccupation with organic pathology influence our treatment. As physicians, our training has been chiefly in the study of the diseased organ. We are just beginning to learn that organic disease may result from functional disorder, that the hemorrhages of peptic ulcer may be induced by emotional stress, that anxiety may breed angina, and subsequent coronary thrombosis. More and more the voices of wiser physicians are being heard to emphasize the truth that in dealing with the problems of the emotional life, the problems of the patient's behavior and his reaction to environment, we are not only doing what is most valuable in curative medicine, but we are also instituting an important step in preventive medicine.

If a young clinician were to come to us and say, "Yes, I realize that much can be done by experienced men in dealing with these problems, but I ask you can their knowledge be imparted? Is this art teachable, and learnable? Can you tell me some-

thing that I can carry away with me and put to immediate use?" In answer this must be said, "If you expect any rule of thumb, you must be disappointed. If you even expect the exposition of a system of treatment however elaborate it be, by which the disorders of personality may be dealt with, you will be disappointed. Many systems have been evolved. The more elaborate the system the more surely is it in error. The more rigid the system, the more unfailingly will it lead in many instances to failure. Something of value can be learned from every system. If you will examine attentively cures by faith, cures by suggestion, cures by re-education, cures by rest, cures by isolation; cures by a quick imperative demand, and cures by gentle suasion; cures by work, cures by diversion and even cures by psychologic analysis, from each of these you will gain familiarity with a weapon that will come tellingly to hand at some point in your struggles to help the patient. No knowledge that you will ever have acquired in training dogs, in rearing babies, in guiding children, or in leading men will fail to be of use to you in making your psychotherapeutic approach. You may find that the philosophy of Aunt Het or Will Rogers will stand you in better stead in dealing with your patients than the polysyllabic lucubrations of academic psychologists. The more that your experience and reading will have taught you of the behavior reactions of human beings, of the reactions of different temperaments in different environmental situations, the better psychotherapist you will be. If you are able to conceive how Hamlet would have acted had he been in Macbeth's place, or how Romeo would have managed the Taming of the Shrew, you will be the better doctor for it. If as far as your powers and abilities go you can learn what life and living mean you are learning what is needed to treat your patient."

But the young clinician objects, "This is all very vague". I can only reply, "It is. You are dealing with living souls. Life is like that." Yet I believe there are some counsels that might be of use. I venture one or two.

There is a celebrated character that usually appears quite early in every psychologic treatise. This personage is the well-known rat in the maze. Both students and authors usually incline to regard this rat with considerable disdain. They measure the time that the rat takes on successive days to find his way through the intricacies of the maze to the cheese that lies in the center. The attitude of the student toward the rat is, in general, "Poor, foolish rat". I should like to

call your attention, however, to the fact that this rat has one psychologic quality of the highest value which is often lacking in those who are called on to study his movements. The rat keeps his mind intently fixed on the cheese. However long it may take him to reach his goal, he keeps going until he gets there. He has a single objective. He is single-minded in keeping after it. Neither philandering by the way nor cloudy metaphysical speculation can entice this rat from his drive for the cheese. My advice to those undertaking psychotherapeutic treatment for the cure of functional disorders is to emulate that rat. Keep the goal in mind. Do not be diverted into the bypaths of surgery or pharmacology but, having set the problem before you hold it there until a solution is found. You will ultimately find the solution if you are determined to do so and, like the rat, each time that you have found such a solution the problem will become easier when it is set again. You should go at the problem, not bound by any system, or by any set of rules. It is a catch-as-catch-can wrestling match in which all the power, all the skill, all the knowledge of man that you have been able to accumulate during your life will be called into play. You will warily watch for an opening, for a weak point in the defenses (of your antagonist) and be quick to seize your opportunity.

It may be said then that the first requisite of successful psychotherapy is that the physician be Ziel-bewusst, goal-conscious, aware of his purpose, and that that purpose is the re-conditioning of his patient's emotional life and visceral habits.

A second requisite of successful psychotherapy is the formation of a therapeutic plan. This plan requires pondering. It must be thought out. It must be at once flexible and strong. The patient quite generally feels confused and disordered. He is aware of a break in the harmony of his inner life. He gains confidence and hope from the thought that a well considered plan has been worked out for his betterment. Though the plan is flexible the alterations are to be made only on the initiative of the doctor and not according to the patient's whims.

Whatever the therapeutic plan may be it will require as a special part of it long talks with the patient. But the doctor can not sit in the high seat handing down lectures and homilies to the patient. He will first attempt to educe from the patient all the intricacies of his emotional experience. He will learn the patient's prejudices, his darling likes and dislikes, the hot-spot in his emotional experiences as well as his daily routine of life. The doctor will find it necessary to

teach the patient many things and in order to be a successful teacher he must have an intimate contact with the patient's way of looking at things. To teach well, he must start from the patient's own standpoint. He must employ the ideas that are familiar to the patient and easy for him to comprehend. If Mrs. Jones comes to him depressed, discouraged, forlorn, and with a long Iliad of woes it will not do to expound to her the Herbert Spencerian system of ethics before attempting to arouse her resolution and courage. Mrs. Jones is a faithful member of her church and it is very evident that her doctor should be intimately acquainted with those teachings that have been instilled in her as a child in that fold. Using the language through which those precepts were rooted deep in her early life, he will find means to stir her hidden resources of strength and energy, as he could never hope to do through the pale abstractions of some unfamiliar philosophy. Though the doctor himself be a Buddhist or Mohammedan, he will find it to his advantage to use with this patient such Golden texts, and such words from gospel hymns as are knit into her childish ideals of righteousness. The fisherman does not choose his bait to suit his own taste but the taste of the fish.

Further the attitude of doctors must be to understand not to judge, to help not to condemn. He must have a sympathetic familiarity with the language of the Puritan and the Liberal, of the ascetic and debauchee, of the self-seeking and the self-sacrificing, of sinner and saint. As he comes to know all these types he finds that their differences are superficial, their likenesses are the fundamental stuff with which he is concerned. Yet while the fundamental springs of action are much the same for all, he must also learn the language of each.

The young doctor often finds himself baffled in the search for words with which to deal with these patients. His own inadequacies of insight and vocabulary may bring him to the shabby defense reaction, "I don't want to have any thing to do with that kind of people. People have to be sick for me to doctor them." We know of course that such expressions display not merely a regrettable clumsiness in medical art but also a large central scotoma in outlook on medical science. This barrenness of words and ideas to be currently employed in the re-education of his patient the doctor may supply to a large extent by well chosen reading. He should not let a year pass without reading several books

in order to refresh his treasury of illustrations and enlarge his store of ideas. He may read Dubois monograph wherein even long conversations are transcribed, what the doctor said to the patient and what the patient had replied. Of particular value because the point of view taken fits in with our medical background, is an intimate acquaintance with the work of that greatest of living scientists, Pavlov, and of those who have worked along his path, the books of men such as John B. Watson in his studies of human behavior and the conditioning of reflexes in man and of Cannon, the physiologist, in his investigations concerning the physiology of the emotions. In Well's last book, "The Science of Life", is to be found written in his easy and lucid style an excellent account of Pavlov's work. If one has his mind enriched with such studies, if he has sufficiently assimilated the teachings of Pavlov as to be aware of the tremendous possibilities of modifying the physiology of the cerebral cortex, of re-educating the visceral reflexes, instead of feeling a hopeless impatience upon the discovery that his patient's disorders are functional he will look with joy on the approach of such a patient as offering him a field for fruitful activity. He will probably find in his neurotic patients far more complex and interesting problems for study, far more of a challenge to his powers of analysis and decision than he could hope to find in the study of the hopeless organic degenerations so dear to the heart of the old-fashioned pathologic anatomist.

A large part of the field that we are discussing today is occupied by the so-called organ-neuroses; neuroses of the digestive system, of the urinary system, of the heart and peripheral vessels. The textbooks on practice of medicine give the student an erroneous viewpoint in regard to these disorders by grouping them with diseases of the several organs. The organ neurosis should of course be brought together under the head of morbid physiology in the domain of the autonomic nervous system. Due to this scattered presentation it is difficult for the student to escape a bias towards thinking of his patient in terms of organ pathology. The treatment he attempts to

employ often reflects this mistake. Dr. Alvarez's delightful book on "Nervous Dyspepsia" is an excellent piece of missionary work against this type of error. It is fine to see that he is continuing this much needed propaganda. The last number of the Medical Clinics of North America, a Mayo number, opened with an article by Dr. Alvarez, in his usual simple and engaging style. I feel confident that I am making no mistake in saying that it is worth more to the practitioner than all the rest of the writings in this volume put together. If we will apply to the other systems, the cardiovascular system and the rest, the principles so well illustrated by Doctor Alvarez in the case of the stomach, we may be sure that our therapeutics will be far more effective.

Just here we come upon one of the greatest difficulties that the practitioner encounters in dealing with organ neuroses. The patient is loath to think of his trouble as a neurosis. It is very difficult for the average patient to understand what we mean by that term. The patient feels that he can speak ill of his heart or his stomach without discredit to himself. If, however, we try even with the utmost delicacy to suggest that this is essentially a disorder of personality, that his troubles are neurogenic, he is apt to resent the diagnosis as an unwarranted criticism of his dearly loved ego. The problem of bridging the supposed abyss between the somatic and psychic for our patient is one that would tax the skill of the most accomplished neurologist. The problem however never reaches the neurologist. When this patient consults a neurologist he has already accepted a neurologic interpretation of his difficulties. What is often the crux of the problem is already solved. No solution of the treatment of the organ neuroses by psychotherapy will ever be found unless it can be found by the practicing internists. It is for this reason that such a symposium as we have today is of such tremendous value to the practising doctor. Little can be said here except to state the problem and ask him to study it, with the promise that the rewards of success in his study will be far greater than in most fields of therapeutic endeavor.

One soon finds in practice that an indis-

pensable prerequisite of successful psychotherapy is that the patient should earnestly desire to get well. The alternative is incarceration in a hospital where he may be coerced into health. If he can be cured at large under conditions approximating his normal life it will be far better for him. He will have gained a self-reliance that will stand him in stead should evil days come again. He will not think of the hospital as his only rescue in case he slips. Hence it is an excellent plan to spend time in assuring one's self of the patient's earnestness before elaborating any therapeutic plan. We may ask the patient again and again, "Are you serious in your desire to be cured? Would you be willing to go to any length in your effort to get well? How much are you willing to sacrifice in order to regain your health?"

Any successful therapeutic plan will involve the patient's doing things that are difficult for him. If we have succeeded in surmounting the first great obstacle, namely an admission on the part of the patient that his system of conditioned reflexes and his visceral habit formation are faulty, we shall still find that the surest means to develop the patient's strength is to have him each day do something that is hard for him to do. One of the hardest things for the patient is not to speak of his symptoms to members of his family. To ambulatory patients it has been my custom to give a little book in which they keep a daily memorandum of the hours of rest and exercise, of progress of the vegetative functions, and usually a notation, "have you kept Rule 1". Rule 1 for nervous patients is written on the first page of the book and reads, "Never speak of sickness, or symptoms of sickness to anyone but the doctor". Frequently it is good to have the patient make a note of what difficult task he has accomplished during the day. In combating the phobias and inhibitions the simplest therapeutics is to have the patient march straight up to the difficulty and do each day in some measure the thing he dreads to do. The encouragement and support that we give him in doing this will almost always with little delay carry him from victory to victory and to a final overcoming of his difficulties. The success of this plan

is strikingly illustrated in cases of habitual vomiting. When we explain to the patient that nausea is one thing, a feeling, and vomiting is a different thing, an action, an act prompted by the desire to get rid of that feeling, when we say to him "If you consent to endure the feeling without performing the act of vomiting, the discomfort will soon disappear".

We find that, should the patient follow this suggestion for even a short time, he will almost surely be cured. There is no tonic more potent than the *gaudium certaminis*—the joy of struggle. There is no stimulant surer and more lasting than the joy of victory.

DISCUSSION ON SYMPOSIUM ON THE PSYCHONEUROSES

Dr. George L. Echols, Milledgeville: I wish to express my great appreciation and thanks to whoever engineered the program for last night and this morning. I also wish to express my great appreciation and thanks to the men who have so ably prepared these papers. I was favored with advance copies and have studied them carefully, but I learned much more this morning by hearing them read.

I wish to emphasize one thing that makes me very pleased. The change in attitude during the last few years toward problems coming under the head of nervous and mental disturbances has been most gratifying to all. Fifteen or twenty years ago it was not unusual for my colleagues to tell me they "did not see how I took up my time with those crazy folks at Milledgeville". Think of the change that has taken place. At that time I stated that only four medical schools in the country were giving competent education in the psychoses and psychoneuroses, but I am glad to say that practically all the Class A schools are now giving time and proper instruction in psychiatry and the psychoneuroses. I have noticed in the papers throughout the session that the doctors have gone into the nervous side of the illness they were discussing.

Dr. L. Minor Blackford, Atlanta: There is only time for a word concerning the things that impressed me most in these papers:

Doctor Gaines brought out that a psychoneurosis is the response to emotional stimuli in a *susceptible* individual, and that such individuals do *not* imagine their ills.

Doctor Calhoun's delightful paper impressed me by the tact, care and common sense he exercised in the treatment of his patients.

Doctor Wahl's somatic explanation of the circulatory neuroses is interesting. Two or three medical students come to me each year because they feel premature ventricular contractions. In the case of one,

seen a couple of weeks ago, I found evidence of renal disease. I think, even though we may be quite sure that our patient's chief complaint is on a functional basis, we should go over him carefully for we may find something unexpected but of greater importance. Doctor Wahl's insistence that the physician should be the last person to precipitate a cardiac neurosis is well taken.

Doctor Oppenheimer brought out the importance of functional disorders of the gastro-intestinal tract. Perhaps these are the commonest of all. His approach to the problem was novel and most satisfactory.

Doctor Young made plain to all of us the theory of relativity in a way that was truly remarkable. The man who said there were only twelve persons in the world who could understand this theory did not know Walter Young, nor his powers of exposition.

I have been wanting to hear Doctor Houston and to meet him ever since I read a paper of his in the *Southern Medical Journal* four years ago. I thought and still think it was epoch-making. I am looking forward to this book he is writing; my order is already in. His ideas and insistence that we must treat these patients are refreshing. I suspect that the doctor can do more good in the treatment of patients suffering from functional disturbances than any other group.

Dr. J. A. Redfearn, Albany: I want to emphasize the fact that this disease condition, like malaria and syphilis, may simulate any known disease. Doctor Gaines brought out that about 50 per cent of our patients have either a primary or a secondary neurosis. We must not forget that fact in treating these individuals. Why? Because if every other patient you meet has this condition and you do not recognize it and treat it, that patient will go from you to some crook who will treat it in some form, and they do go to such men and they take others. This field has been greatly neglected. I am told that more than 50 per cent of the practice in Germany today is carried on by crooks.

I wish to cite one case, that of a doctor's daughter, twenty-eight years of age, who consulted me because of a dysentery which she said had persisted for three weeks. She went to another doctor who gave her a prescription that checked it, but she still worried. Her mother died of cancer of the breast. This patient had had her own breast removed, her appendix removed, and was prepared to have her colon removed if some doctor suggested it. I told her she had a cancerphobia and she promptly admitted it. She was so run down that she had to have a hypodermic injection at each menstrual period. Under proper management this condition cleared up and for three years she has needed no hypodermics.

Dr. James N. Brawner, Atlanta: Today we have had the privilege of hearing several excellent papers on the psychoneuroses, their symptoms and treatment. There is little that I can add to what has already been said, but there are one or two phases of the subject which were discussed by Doctor Gaines and Doctor Houston that should be emphasized. One is the

mechanism in the formation of the conditioned reflexes as demonstrated by Pavlov, whose experiments on dogs give an insight to many of the symptoms found in the psychoneuroses. Pavlov showed that a dog could be taught to associate the flow of saliva with the ringing of a bell, provided the sight of food and the ringing of a bell were experienced by the dog several times in succession. Pavlov's experiments demonstrated forcibly that when two experiences occur simultaneously, although at first unrelated, they finally become associated and the experience of the one will recall in consciousness the experience of the other. We are now beginning to understand that some of the psychoneuroses are due to mechanisms of this character and this is especially the case where the unpleasant experiences occur in early life.

ETIOLOGY AND TREATMENT OF CHRONIC ARTHRITIS

The presence of streptococcic antibodies in the blood of arthritic patients led Reginald Burbank, New York (*Journal A. M. A.*, October 29, 1932), to the search for antigens in the systemic circulation and the finding of positive streptococcal blood cultures in afebrile arthritic persons. These low virulence blood culture strains, when injected into rabbits, produced indolent rheumatoid lesions exactly comparable to those found in the human being, and the cultures made from these experimental lesions injected into normal rabbits produced similar changes in the joints and gave identical cultures. These arthritic joints, when cultured in bouillon and sectioned after staining, demonstrated the hematogenous distribution of the infection, showed the actual distribution of streptococci and definitely indicated that the actual presence of bacteria rather than any toxic or allergic action is primarily responsible for the arthritic manifestations. Owing to the systemic character of the disease, the author's first attempt in the treatment is to prevent absorption and dissemination of bacteria from foci of infection, both primary and secondary. The complementary titer of the patient's blood is an index to the value of vaccine. Autogenous and complement-fixing strains in dosage kept small enough to avoid reactions have been found much more satisfactory than any shock or foreign protein therapy. Since the intestinal tract is a major secondary focus of infection, the bowels should be kept adequately open without irritation, and the attempt made to eliminate streptococci as far as possible. Because of the circulatory dissemination of bacteria, it is essential to improve terminal circulation by means of iron tonics, general hygienic measures, improved posture and orthopedic corrections. Massage, exercise and physical therapy are also valuable in improving peripheral circulation. Except for the use of thyroid, glandular therapy has in the main proved disappointing. Diet, palliation of pain and general constructive measures should be individually outlined for each case. Since the disease is definitely a systemic one, every effort should be made to keep the patient's general physical condition at par. The better the general health of the patient, the quicker and better will be the response of the joints.

SYMPOSIUM ON DIABETES

Drs. Bowcock and Harbin

PRACTICAL MANAGEMENT OF
DIABETES*

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Diabetes mellitus has been the subject of so many papers during recent years that it becomes increasingly difficult for many doctors to keep pace with the changing attitudes toward the management of the disease. It is the purpose of this paper to present a simple and practical discussion of management.

Obviously, a disease must be diagnosed correctly before the disease can be treated. The symptoms of diabetes are usually typical and easily recognized. Most often without regard to the patient's age, a history of excessive thirst, frequent urination with the passage of large quantities of urine, increased frequency of urination during the night, increased appetite, loss of weight and weakness and the discovery of a reducing substance in the urine make the diagnosis of diabetes certain. The mere presence of sugar in the urine usually means diabetes, but this is not always true. Benedict's qualitative solution with the addition of eight drops of urine and boiling still represents the best routine test for sugar in the urine. Only a single test solution is required, the reagent keeps well and it seldom gives false positive reactions. Fehling's solutions and Haine's solution yield the same information. If a reducing substance is discovered in the urine before condemning a patient to a diabetic routine for life, it is essential to prove that the blood sugar is abnormally high in the fasting state or after an ordinary meal. When laboratory facilities are not available locally, one may withdraw 5 c.c. of blood from a vein, expel it into a bottle containing a knife point of potassium oxalate crystals, shake well, add a small drop of commercial formaldehyde solution, shake again and mail to the nearest laboratory. The sugar of the blood will disappear to a negligible amount if at all during a period of 24 hours after the addition of formaldehyde.

Some mild cases of diabetes of any age, and particularly patients beyond fifty years of age, may have no symptoms of diabetes. The reducing substance may be discovered in the urine during the course of a routine examination. Blood sugar determinations are absolutely essential to make a correct diag-

nosis under such circumstances. It has been the custom of many doctors to resort to complicated and time-consuming glucose tolerance tests in these doubtful cases. While such a procedure gives information which is needed in the exceptional case it is usually unnecessary and the results serve only to confuse the physician who is not entirely familiar with their interpretation. A simple and entirely reliable method is that of determining the blood sugar in the morning before breakfast, the patient having eaten nothing since the evening meal on the preceding day. If this specimen gives a normal result, blood should be taken again one hour after a meal consisting of meat, potatoes, two slices of bread and butter, a piece of pie and coffee with cream and sugar. The patient should be warned to eat a general unrestricted diet for at least two days before the test; if there has been previous restriction of starch and sweet foods, such a meal will cause the blood sugar to ascend to an abnormally high level even in a normal individual. The normal morning venous blood sugar in the fasting state is not higher than 110 milligrams per 100 c.c. of blood or 0.11 per cent, while that one hour after the test meal should not be higher than 160 milligrams or 0.16 per cent. If sugar should be present in the urine at the same time that the blood sugar is within normal limits, the patient has a form of renal glycosuria and requires no diet except a precautionary restriction of sugar and sweets.

Pregnancy may present a particularly confusing situation with the appearance of a reducing substance in the urine. This reducing substance is usually lactose when it appears during the last few weeks of pregnancy, the puerperium or the nursing period. On the other hand, a few women develop diabetes during pregnancy and must receive adequate treatment as the diabetes constitutes a serious complication. A third group has glucose in the urine in the presence of a normal blood sugar; this is the so-called renal glycosuria of pregnancy. This last condition is temporary and harmless and requires no treatment except precautionary restriction of sugar and sweets; it disappears with the termination of the pregnancy. It may or may not be possible to arrive at a correct diagnosis of the condition present by a special examination of the urine. A piece of live yeast cake about the size of a pea should be thoroughly mixed with an ounce of urine in a vessel and the mixture allowed to stand for twenty-four hours in a warm place; at the end of this period, if the urine mixture reduces as

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strongly as before, the reducing substance is probably lactose; if little or no reduction of the reagent takes place, the reducing substance was glucose. Glucose is fermented and destroyed by yeast while lactose is not. In case the reducing substance is glucose, blood sugar determinations must be done in order to rule out the presence of diabetes. Lactosuria is harmless and requires no treatment; it disappears when lactation ceases.

Head injuries, meningitis, particularly syphilitic, and a number of other conditions may cause sugar to appear in the urine in the absence of true diabetes.

The treatment of diabetes is still dietetic. The preliminary diet for an individual depends upon his age, weight and activity. The first consideration of the diet is the amount of energy or the number of calories which it must contain; these calories are derived from carbohydrate, protein and fat. It is more convenient to figure diets in grams than in ounces and thus avoid confusing fractions. One gram of protein yields 4 calories, one gram of carbohydrate yields 4 calories and one gram of fat yields 9 calories. One ounce is equivalent to approximately 30 grams. For an adult performing light work or office work, a ratio of 12 calories per pound is usually sufficient. That is to say, the patient's weight, in pounds, multiplied by 12 indicates the number of calories which he will require during 24 hours. An aged or obese patient requires a smaller ratio while a child requires 25 to 30 calories per pound and an infant about 45 calories per pound. An undernourished patient requires 15 calories per pound.

The next consideration is the protein content of the diet; an amount sufficient to avoid loss of body protein must be administered. An adult requires one-half gram of protein per pound of body weight in order to give a palatable and varied diet; a child requires one gram per pound and an infant one and one-half grams per pound. Patients with nephritis may receive one-third less protein.

The carbohydrate of the diet should not be given in a ratio of less than one-half gram per pound of body weight.

We may give two and one-half times as many grams of fat as carbohydrate in 24 hours, but should not exceed that ratio. It is said that fat burns in the carbohydrate fire, and if too large a ratio of fat is given the patient is likely to develop acidosis and coma as a result of the incomplete burning or oxidation of fat. It is wiser and safer to give less than 2 grams of fat for each gram of carbohydrate.

The simplest method of arranging the

diabetic diet is by first writing a routine skeleton diet on which one may build up to the desired formula for the 24 hours. This skeleton consists of one ounce of dry oatmeal, cream, fruit, in the form of orange or grape fruit, 2 to 4 slices of crisp bacon, one egg, cream, butter, one serving of meat, and ordinary servings of the so-called 5 per cent and 10 per cent vegetables. Additional foods are then added in amounts necessary to satisfy the formula.

At this point, let us consider an example: A man, 5 feet, 10 inches tall, by occupation a clerk, has diabetes. He weighs 150 pounds. He requires a diet of about 1800 calories; this figure is obtained by multiplying his weight of 150 pounds by the factor of 12 calories per pound. He should receive one-half gram of protein per pound of body weight or 75 grams in 24 hours. An equivalent amount of carbohydrate gives him 75 grams of carbohydrate. A little less than two times the number of grams of carbohydrate will allow him 135 grams of fat. His total calories from this diet will be 1815 calories in 24 hours. There is no easy method of converting this formula into a day's ration; this requires experience and practice and the help of a good manual such as Joslin's Diabetic Manual. Many publications on diabetes contain satisfactory sample menus of this nature.

Having arrived at the day's ration, the next problem is the division of the total into a menu. If the patient is a mild diabetic and does not require insulin in order to remain sugar-free, the menu should be arranged so that each meal contains about an equal amount of carbohydrate, protein and fat. Such an arrangement prevents an excessive dose of carbohydrate at any one time.

In arranging insulin dosage there is no need to wait until a certain diet is tried without insulin. This statement refers to those diabetics who have the typical symptoms of diabetes and are putting out large quantities of sugar in the urine; in other words, the apparently severe or moderately severe diabetics. The safest trial arrangement is as follows: Outline the proper diet and give the first day, 10 units or one-half c.c. of U-20 insulin, 15 minutes before breakfast. The second day the same dose of insulin may be given before breakfast and before the noon meal. If the patient continues to excrete much sugar, on the third day, the same dose of insulin may be added before the evening meal. Of course, daily 24-hour specimens of urine must be saved and tested for sugar. If this arrangement fails to rid the urine of sugar, on the fourth day, each specimen of urine voided should be tested separately for

sugar. If all specimens show sugar, all doses of insulin may be increased a little. If only the morning specimens show sugar, the morning dose of insulin should be increased to three-fourths c.c. of U20 insulin or 15 units. Thus, the insulin dosage is arrived at by a process of trial and error. It often happens that a patient requires only one dose of insulin daily. If this is so, 10, 15, or 20 units may be given before or after breakfast and the diet may be so arranged that about three-quarters of the carbohydrate is taken with the morning and noon meals. That is to say that the larger meals of the day should get the effect of the insulin dose.

The best time for the administration of insulin must be determined for each individual on a basis of trial and error. The patient whose morning urine is sugar free may show some sugar after breakfast when the insulin is given 15 minutes before the meal; the same dose of insulin may keep the urine sugar free when given 30 or 40 minutes before breakfast. The location of insulin injections should be changed for each dose. Repeated injections in one area will cause induration and faulty absorption. Patients are likely to choose such thickened areas because the pain from the needle is less.

During this period of arriving at the proper insulin dosage, or even after satisfactory arrangement, the patient may experience the symptoms of an insulin reaction. Such a reaction occurs when the blood sugar has been depressed to an abnormally low level as an effect of insulin. The common causes of insulin reactions are: (1) Too large a dose of insulin; (2) the proper dose of insulin but too little food taken; (3) an unusual burning or using up of food by excessive exercise; (4) failure of the stomach to empty itself normally as the result of emotional stress or illness. The common subjective symptoms are extreme weakness, hunger, emptiness, headache, nausea, quivering sensations, actual tremors or twitching of the extremities, palpitation, blurred vision or double vision, indecision, anxiety and a feeling of impending collapse. The visible signs are often pallor, crossing of the eyes, drenching perspiration, rapid, slow or irregular pulse, a fall in blood pressure and abnormal temperature. Not all of these symptoms need be present to make the diagnosis. The antidote is the immediate administration of a small amount of sugar, candy, syrup, orange juice, or other food rich in carbohydrate. If the antidote is not given the patient may pass into a state of coma which is entirely different from, but may be mistaken for diabetic coma. Convulsions occur rarely. A specimen of urine obtained from a patient

in insulin or hypoglycemic coma is nearly always sugar-free, while the urine from a patient in diabetic coma always contains much sugar and usually much diacetic acid. When in doubt, the safest plan is to administer a small amount of sugar if urine can not be obtained at once. Occasionally, a patient in insulin coma does not absorb the carbohydrate which has been given by mouth and the coma persists. Such cases are relieved at once by the slow intravenous injection of 10 to 20 c.c. of 50 per cent glucose solution. Every doctor who treats diabetes with insulin should carry an ampoule of glucose solution in his bag.

Sometimes the insulin reactions in children or nervous individuals are very bizarre in their symptoms. The patient may pass into a drowsy and then comatose state without any of the usual warning symptoms. In others, I have seen hysterical laughing, crying, screaming, delirium, fits of temper or other peculiarities of behavior. Very rarely a patient shows a hemiplegia of two or three days duration. All of these symptoms except hemiplegia respond at once to the administration of glucose or sugar containing foods.

Some diabetics show remarkable improvement under treatment. Some are able to discontinue insulin and increase the carbohydrate of their diet without a return of sugar in the urine. One should *always* strive to increase the carbohydrate and *decrease* the fat in the diet, approaching as nearly as possible the normal diet. The properly treated case of diabetes should have an established diet containing 120 to 150 grams of carbohydrate daily. There is much evidence to show that the higher carbohydrate diets tend to promote improvement in carbohydrate tolerance if the urine and blood sugar are kept within normal limits with insulin. No diabetic remains absolutely stationary in his tolerance; at times, he is better, while at other times his tolerance temporarily decreases. There is a tendency for doctors to permit their diabetics to become fat; this is absolutely wrong and contrary to all experience. Nearly all diabetics do well if the energy value of the diet is not excessive. With high calorie diets and obesity the disease is likely to grow more severe and the complications become more frequent.

Anything unusual occurring in the life of a diabetic patient constitutes a complication and should be treated as such; this means that the physician should double his vigilance toward his patient. An unfavorable situation may be created by financial worries, home difficulties, infections, an attack of diarrhea, pregnancy, toxic goitre, excessive fatigue, or surgical complications.

Diabetics may require relief from any of the pathological conditions common to the non-diabetic, but the diabetic is more likely than others to need surgical attention on account of local infections, boils, carbuncle, gallbladder disease, cataract and gangrene. The skin of the diabetic is particularly liable to infection because it contains sugar instead of glycogen. If dental extraction be considered an operation, and it merits such consideration in the diabetic, then one-half of all diabetics are operated upon at some time during their life.

In the non-diabetic subject the surgeon may expect success from a combination of a correct diagnosis, the display of good judgment, the proper preparation of the patient, the proper choice of anesthesia, the assistance of a competent anaesthetist, correct surgical technic and correct post-operative treatment. The presence of diabetes in a surgical subject demands a special attitude towards each of the points mentioned.

In a known diabetic, the greatest difficulty may be experienced in arriving at a correct diagnosis of an acute surgical condition of the abdomen. In the presence of acute appendicitis there may be almost nothing to suggest such a diagnosis and the only decisive point may be sharply localized tenderness by abdominal, rectal or pelvic examination. Approaching coma due to acidosis *must* be ruled out because its symptoms are often strikingly similar to acute abdominal pathology with localized pain, nausea, and vomiting, rapid pulse rate, fever and slight to marked leukocytosis. When in great doubt, the least serious risk is in operating. Because of the frequency of cardiovascular disease in diabetes, angina pectoris and coronary occlusion with abdominal pain demand serious consideration.

Certain cases of hyperthyroidism are accompanied by glycosuria and slight elevation of the blood sugar; these symptoms disappear after thyroidectomy. Other cases of hyperthyroidism have an association of true diabetes; both conditions improve with operation, but the diabetes is not cured. The most skilled clinical assistance is required in the successful operative management of the latter group.

Any local infection which shows a tendency to extension constitutes a surgical emergency because at best, diabetic infections require radical treatment with wide drainage and tend to heal slowly. Carbuncle is one of the most serious of infections because of the great danger of bacteremia and metastatic abscesses.

Of chief importance because of its fre-

quency is gangrene of the extremities. The best medical and surgical judgment is often required to determine the advisability of operation. In general, one may say that operation is indicated immediately in the presence of spreading infection and extensive arterio sclerosis of the extremity, and at leisure in indolent lesions associated with much pain, marked infection or marked impairment of the circulation. Amputations at the thigh have a higher mortality than those of the leg, but the proper location for amputation can only be determined by an X-ray examination of the arteries for the extent of their arteriosclerotic change. A generous flap must be made to avoid tension and subsequent gangrene of the stump.

Any infection makes diabetes worse and consequently the surgical treatment of abscessed teeth, sinus infection, infected tonsils or infected gall bladder is more important in this class of patients than in the non-diabetic. I have seen severe acidosis or coma precipitated by the following infections of interest to a surgeon: otitis media, mastoiditis, sinusitis, tonsillitis, acute appendicitis, Bartholin's, carbuncle, subcutaneous spreading infections after injury and infected gangrene.

Any necessary operation may be undertaken on the diabetic. It is preferable to have the patient sugar-free, but in an emergency this is not necessary. Fifteen grams of glucose and ten units of insulin may be given shortly before the operation. The carbohydrate is preferably given by mouth in the form of 150 c. c. of orange juice, or as glucose by vein in case of vomiting. Extreme acidosis is a contraindication to immediate operation; in such cases, medical treatment should be carried out for several hours before operation.

Any type of anaesthesia may be employed. Local anaesthesia is successfully employed if the injections are not made into an infected area. Ether may be employed for tonsillectomy or as necessary, but demands rapid work. Spinal anaesthesia has become popular for amputation in the larger clinics. Gas oxygen and ethylene are, in general, the anaesthetics of choice. Chloroform and ether lead to hyperglycemia and acidosis.

Diabetic tissues are easily injured and repair slowly and consequently should be subjected to the least possible trauma.

Postoperatively, sugar will probably be present in the urine for one or two days, and this is of no importance so long as acidosis does not occur. Orange juice, oatmeal gruel and water constitute the principal intake during the early recovery period. In case of vomiting, glucose should be administered in

normal saline by proctoclysis, hypodermoclysis or intravenously in doses of 10 grams. Insulin is administered at intervals and in doses to suit individual requirements. In emaciated patients or those recovering from infection (as the carbohydrate tolerance improves) one should be on the look-out for hypoglycemic insulin reactions.

The prognosis in the surgery of diabetes depends upon many factors. It is said that a fasting blood sugar of 0.35 per cent or more suggests a serious prognosis. Nevertheless, in the vast majority of instances the outcome reflects the care and skill with which the patient is handled. That which constitutes excellent surgery for the non-diabetic may constitute the opposite for the sufferer from diabetes!

The most frequent of all serious complications of diabetes is diabetic coma. The rules for the treatment of coma have not changed in recent years. Every case presents its own special problems and no general rules can be given to cover all cases. The presence of infection should be ruled out at once as nearly all coma is secondary to infection. A large dose of insulin, not less than 50 units, should be administered at once. Insulin should be repeated at first, at one hour intervals and later, at two or three hour intervals; the dose depends upon the clinical condition of the patient. The urine should be tested each time insulin is given; the specimen may be obtained by catheter if necessary. The urine should not become sugar-free during the period of large insulin doses. Glucose in the form of orange juice by mouth, or intravenously in 5 per cent solution in normal saline or in 4 per cent solution by rectum in normal saline should be given in amounts sufficient to yield 50 grams of glucose in 12 hours. Water should be forced. The patient should be kept quiet and warm. The bowels should be made to move by enema. Constant careful nursing care is essential. The attending physician must be constantly in attendance or available until the period of coma is ended.

In closing, let me emphasize that every diabetic must know and understand his own diet and know how to test his own urine specimens. Each must have a diabetic manual for his instruction and guidance. No human can be expected to be a contented and cooperative patient if he is obliged to lean on his physician day after day all his life. The good diabetic patient does not dread his disease nor his insulin; he is interested in his disease and his own progress; he is of necessity his doctor's assistant and calls on his doctor whenever he is in doubt.

THE TREATMENT OF DIABETES MELLITUS*

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As yet, there is no known curative treatment for diabetes mellitus. In view of this fact, therapy consists essentially in controlling the disease in a way that will enable the patient to pursue a normal life. In certain cases, this can be done by diet alone while in others, insulin is necessary in addition to dietary measures.

Several factors must be taken into consideration in the preparation of a diet. A pancreas whose output of insulin has been decreased, fares better when the amount of glucose it is called upon to utilize is restricted. That is, when the demands upon such a pancreas are lessened, within certain limits, the output of insulin is greater than when the demands are excessive. The object is to have the patient's tolerance for glucose at an optimum. The glucose that is used by the body comes from three sources, carbohydrate, protein and fat. Woodyatt has devised a useful formula for calculating the glucose value of a diet. This value equals all of the carbohydrate plus fifty-eight per cent of the protein plus ten per cent of the fat. Knowing the amount of carbohydrate, protein and fat in a diet the glucose yield can be easily obtained by this formula.

The metabolism of fat is important since fatty acids are liberated in the body when fat is not completely oxidized. The source of these fatty acids or ketone bodies is not only from the fat but also from the protein. The fatty acid value of a diet equals ninety per cent of the fat plus forty-six per cent of the protein. The oxidation of one gram of glucose will allow for the complete oxidation of one and one half grams of fat. Being able to calculate the glucose and fatty acid values of a diet, Woodyatt put into use the "ketogenic-antiketogenic ratio," that is, the ratio of the fatty acid content to the glucose content. A safe ratio for the average patient is one and a half grams fat to one gram of carbohydrate. However, the safety of this ratio varies with the rate of metabolism and in the individual patient. According to Shaffer it may vary between one and two in different persons. Aside from these considerations, in arranging diets it will be found that those with ratios above one and a half to one will often contain more fat than the average patient will want to consume.

*Read before the Seventh District Medical Society, Rome, Ga., April 6, 1932.

The caloric value of a diet must be sufficient for the nutritional needs of the patient. There should be no disability from undernutrition. It is best for the majority of patients to be slightly under the average weight for persons of their age and height. In other cases, it is necessary to individualize, taking into account physical makeup and activity. The number of calories required are twenty-five per kilogram of body weight for each twenty-four hours, at rest in bed, and thirty-five per kilogram for moderate activity. This applies to adults whose respective weights are satisfactory. Children require more calories per kilogram, according to their age.

The protein requirement of the patient must be satisfied. The usual daily intake of protein will be one to one and one-half grams per kilogram of body weight for an adult, whereas the minimum requirement is about two-thirds of a gram. If the body is not given this minimum amount daily, it will use its own protein. There are two reasons why there should be a moderate limitation of the protein intake. First, the specific dynamic action of protein of increasing the body metabolism, which in turn decreases the tolerance for glucose and second, Wilder's experimental work indicates that protein has a specific action which interferes with the utilization of glucose by the body. The "ketogenic-antiketogenic ratio" which has been referred to, is of no value unless the calories and protein in the diet are sufficient for the needs of the patient and unless the glucose which is taken in is utilized.

A diet must also satisfy the likes and dislikes of a patient for certain food. In making out a diet each patient should be questioned as to his or her food likes and dislikes, giving that patient, as far as is possible, the foods desired, arranging the quantities so that the other requirements of the diet will be fulfilled. Unless this is done the average patient cannot be expected to remain on a fixed diet for a long period of time.

In general, insulin is indicated when the diabetes cannot be controlled satisfactorily by a diet which fulfills the requirements that have been mentioned.

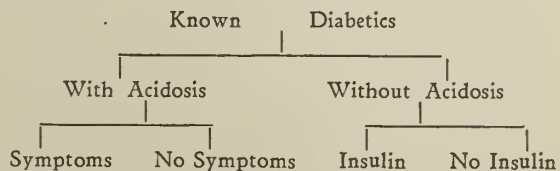
Physical and mental disturbances such as infections, injuries, surgical operations and emotional changes may or may not aggravate any diabetes, whether mild or severe. If such a disturbance occurs, it may precipitate acidosis and coma, unless steps are taken to change the trend of events. In this way, a mild case may assume the aspects of a severe case. However, patients with severe diabetes

are more susceptible to such changes than those with mild diabetes.

In any metabolic disease, a knowledge of the intake and output of the patient affords one of the best means of studying that patient. Diabetes is no exception to this rule. It happens that in this condition, being interested chiefly in the utilization of the glucose, it is possible to accurately measure the intake and output of glucose. Knowing the glucose intake during a definite period of time and knowing the amount of glucose excreted during the same period, the difference in these two quantities represents the amount utilized by the patient during the stated period of time, provided the digestive and excretory powers of the patient are normal.

Accurate scales, measured in grams and preferably with an adjustable dial, are necessary for weighing food in order to determine the glucose intake. A quantitative estimation of the number of grams of glucose in the urine indicates the output of glucose.

In general, patients with diabetes may be divided into two groups, severe cases and mild cases. The first type is usually found in children and young adults whereas the latter type occurs in middle aged and elderly individuals and is often associated with arteriosclerosis. For convenience in outlining the treatment, patients known to have diabetes mellitus may be classified as follows:



The two main divisions are those patients with acidosis and those without acidosis. The patients with acidosis or acid intoxication are further divided according to the presence or absence of symptoms of this intoxication. The cases without acidosis are subdivided according to whether insulin will or will not be required.

The diagnosis of acidosis with symptoms is made after a clinical examination of the patient and the presence of sugar and acetoacetic acid is found in the urine. The blood sugar percentage will be elevated and the carbon dioxide combining power of the blood plasma decreased, since the acid intoxication reduces the alkali reserve of the body. The common symptoms of acidosis are: increase in the frequency and depth of respiration, nausea and vomiting, weakness, flushed face, pain in abdomen, dehydration, mental con-

fusion, drowsiness and in severe acidosis, coma.

Supportive measures are used as indicated by the patient's condition. At this time, the greatest need of the patient is insulin, in order to increase the oxidation of glucose in the body as much and as soon as possible. On the basis that one unit of insulin per kilogram of body weight is the amount that can be put into use by the body over a period of six hours, the initial dose for the average adult will be about sixty units. This may vary somewhat, depending on the severity of the acidosis. In the more severe cases, it should be increased to be certain that the maximum effect of insulin is obtained. The dose of insulin decided upon should be given immediately. If the patient is conscious enough to swallow, ten to twenty grams of soda bicarbonate is given by mouth mixed with the necessary quantity of water, in an effort to increase the alkali reserve. The lower part of the bowel is then emptied by means of a small water enema.

It is well to carry out this therapy by six hour periods, as this is the length of time the action of a single dose of insulin is effective. After the insulin is given, an arbitrary amount of glucose is administered, say thirty grams, during the following six hours. At the end of this time, another specimen of urine is obtained, by catheter if necessary, and tested for sugar and acetoacetic acid. The results of these tests, along with the clinical picture, indicates the condition of the patient at that time and the dose of insulin is governed accordingly. The insulin is then given to start the second six-hour period.

The form in which the thirty grams of glucose is given depends on the condition of the patient. If the patient is able to take fluids by mouth, it may be given as 400 grams of milk and cream or as three hundred grams of orange juice. If this is not the case, the glucose is routinely given subcutaneously in a ten per cent solution. The reason that the same amount of glucose is given every six hours is in order to know the relative effect of successive doses of insulin upon the urinary findings.

When large doses of insulin are being administered, the urine should be tested every three hours in order to know that sugar is being excreted constantly. If the urine should become sugar free or the amount of sugar decreased too rapidly, that is, following a large dose of insulin, glucose should be given immediately by mouth or intravenously in amounts sufficient to cause continuous glycosuria in order to avoid an insulin reaction. Such a change in the urinary findings or an

actual reaction during one of these six-hour periods is an indication to reduce the dose of insulin which is given at the beginning of the next six-hour period. A reaction may be serious when a patient is in a weakened condition, which is often the case in acid intoxication.

The fluid intake of the patient deserves consideration because of the dehydration which usually accompanies the acidosis. When the dehydration is marked three to five per cent of the patient's body weight, as fluid, should be given during the first six to twelve hours. The manner in which this fluid is given depends upon the condition of the patient, by mouth, by rectum, or subcutaneously, or a combination of these routes. The amount that can be taken by mouth varies, depending upon the nausea and vomiting, and should not exceed two to three hundred c. c. each hour, as acute dilatation of the stomach occurs easily in severe acidosis.

This program of insulin, glucose and urine examinations every six hours is continued, the amount of insulin each six hours being decreased according to the change in the condition of the patient. With this change for the better, the thirty grams of glucose each six hours may be given in the form of soft food. When the patient remains sugar and acid free on the same dose of insulin for three or four consecutive periods, the six-hour schedule is stopped. Three meals a day are given, the total glucose of which equals the intake of glucose during the preceding twenty-four hours, which will be about one hundred and twenty grams. The glucose value of each of the three meals should be approximately the same. The insulin dose of the last six-hour period is multiplied by four and divided by three, this amount being given twenty to thirty minutes before each meal. In making this change from four to three doses of insulin daily, the patient may show sugar and develop acidosis during the early morning, making it advisable to give, temporarily, a small dose of insulin, two to four units, at midnight, not covered by food. The morning and noon doses of insulin are then combined, giving two doses daily, one before the morning meal and one before the evening meal.

The patient is put on a permanent diet which meets his or her requirements, the insulin dose adjusted accordingly and decreased in proportion to the increase in the patient's tolerance. With moderate restriction of the glucose intake the permanent insulin dose, if any, will depend chiefly upon the inherent severity of the diabetes.

The next group of patients includes those in acidosis without symptoms of acid intoxication. The diagnosis is made by the presence of sugar in the urine and a positive test with ferric chloride for acetoacetic acid. The majority of these patients are treated best with insulin whereas a few that are known to be mild diabetics may be controlled satisfactorily by diet alone. If it is decided to use insulin, a six-hour program similar to the one just described is desirable. The initial dose of insulin is a small one, five or ten units. At the beginning of each six-hour period the dose is increased five units until the sugar and acid in the urine have been controlled. After the urine has been sugar-and-acid-free for two or three consecutive periods with the same dose of insulin the schedule is changed to three meals a day with three doses of insulin and continued as in the cases of acidosis with symptoms. With the mild diabetics just referred to, the glucose intake is lowered to the extent of controlling the sugar and acid in the urine. As the tolerance of the patient increases the intake is increased gradually until it is sufficient for a permanent diet.

The other main division includes the patients who are not in acidosis and they are subdivided into those who will and will not need insulin. It is not always possible to decide, in the beginning, which patients will or will not require insulin as it may be necessary to make this decision by trial and error. However most of these patients can be so divided after a study of their history, physical findings, and qualitative tests for sugar. Children and young adults who give a history of the symptoms of a severe diabetes, who appear to be underweight, weak and emaciated and whose urine gives a heavy test for sugar, in all probability need or will soon need insulin. That is, they have a diabetes which cannot be controlled satisfactorily by a diet which fulfills their requirements. Individuals above the age of 45 or 50, who may or may not give a history of the symptoms of diabetes, who are often obese and not infrequently have arteriosclerosis and whose urine gives a slight or moderate reduction, have a diabetes which usually can be controlled by diet alone.

If insulin is to be used, the therapy is as follows: a diet is prescribed which meets the requirements of the patient. The twenty-four-hour output of sugar is noted for two or three days and the average number of grams per day calculated. For each one or one and a half grams of sugar excreted daily, one unit of insulin is given, usually in two doses, the morning dose being twice as much as the

evening dose. As this amount of insulin is only an estimate of what the patient will need several days should be allowed for adjustments. Those patients who are to be controlled by diet alone are managed in the same way as mild diabetics with acidosis unaccompanied by symptoms. The glucose intake is lowered to the extent of freeing the urine of sugar and then gradually increased.

The significance of keeping the urine sugar free should be mentioned. The object of not having any glycosuria is to conserve or increase the patient's tolerance for glucose. If, when a patient's output of insulin is very small or approaches zero, to keep that patient's urine free of sugar necessitates undesirable dietary restrictions or frequent insulin reactions, it is better that that patient excrete sugar. When this is the case, the urine is examined to see that it remains free of acetoacetic acid.

A diabetic, when managed properly, is able to undergo surgical operations without incurring any danger because of the diabetes. Insulin has made this possible. Patients who are taking insulin are put on a six-hour schedule twelve to eighteen hours before the operation. Each six hours the urine is tested for sugar and acid and thirty grams of glucose given with a dose of insulin which will keep the urine sugar-free, one or two periods being allowed for this adjustment. The glucose for the period which includes the operation is usually given in the form of orange juice and sugar or sugar and water. After the operation the same program is continued, the glucose being given by mouth or subcutaneously. If sugar or sugar and acid appear in the urine, the insulin dose is increased to control these urinary findings. When this is done no significant acidosis will develop. The fluid intake each six hours should be sufficient, according to the needs of the patient. For a patient who is not taking insulin a similar schedule is started before the operation with the exception that insulin is not given unless it is needed postoperatively to control sugar or sugar and acid in the urine. The general opinion is that diabetes does not interfere with the healing of wounds or predispose to infection in these operative cases.

Last, but not least, is the education of the patient. With our present day knowledge of this disease, there is no curative treatment. Since spontaneous cures do not occur, control of the disease is life-long. For this reason education of the patient is very essential and, if possible, a person who is closely associated with the patient should be educated also. If treatment does not include

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MEDICAL ASSOCIATION OF GEORGIA

Devoted to Welfare of Medical Association of Georgia

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PSYCHONEUROSES

No problem of modern medicine offers so great a challenge to the individual doctor as the proper management of the psychoneurotic patient. No longer may he be dismissed after cursory examination and given a placebo or bluntly told there is nothing wrong with him. Still worse is the practice of treating the patient indefinitely under the name of some organic disorder, while no constructive improvement is expected or obtained. The ability to meet adequately the needs of such a patient is truly an art, difficult to acquire. It was therefore most fitting that a symposium on this subject formed an important part of the program of the Medical Association of Georgia at its recent meeting in Savannah. Both the caliber and general excellence of these papers as well as the evident interest of the members augur well for the progress of medical thought in this field. Especially will the younger members of the profession study with delight and profit the paper of Houston.

The challenge of this problem is manifold and of necessity diagnosis comes first. So often does insidious disease announce its presence by vague symptoms that one does not dare make a diagnosis of functional disorder without adequate study. Moreover, a positive diagnosis of psychoneurosis does not exclude organic disease. On the other hand the discovery of anatomic change does not preclude the possibility of an associated psychoneurosis. Indeed it is often difficult to estimate which factor accounts for the patient's major disability. This point of view was emphasized by Gaines and must never be forgotten. There is a peculiar hesitancy on the part of some physicians to make the diagnosis of psychoneurosis at all, even when indicated by the preponderance of evidence. Yet continuing to search unnecessarily long for a cause will often increase the patient's anxiety

or lead to unwise surgical procedures. The medical annals of the immediate past are replete with instances of this folly.

Essential hypertension is a disease often associated with and aggravated by the presence of a psychic factor. Realizing this truth, Henry Christian once said that he would like to debate, on the affirmative side, the question: "Resolved that the blood pressure instrument has been of more harm than benefit to mankind". The patient should not follow the course of his disease with instrumental precision. Care must be exercised lest he share our anxiety concerning the etiology of hypertension, to his detriment. It is well enough to continue to look for the cause of somatic disease and alterations of function but our patients need not engage in this pursuit.

After the diagnosis of psychoneurosis is finally made on justifiable grounds, the next great challenge to one's ability presents itself. As Houston so wisely observes, it calls

The JOURNAL would like to record the scientific work of Georgia doctors. It earnestly requests, therefore, that each physician in the State who publishes a contribution in some other medical periodical submit an abstract of the article for these columns.

for one's best and it will be necessary to draw from the sum-total of past experiences. Common sense will generally offer a better guide than blundering attempts of psycho-analysis. Each patient must be treated as an individual problem and no general rule obtains. If by any legitimate means he can be given a sense of security and at the same time led to face his problems and adjust himself, much will have been accomplished. Conflicts in the environment must be removed when possible. A definite and proper regimen of diet, habits and hygiene should be outlined and it is well to remove obvious foci of infection. The patient should be warned, however, that such surgical procedures are a minor factor in the treatment of his condition. The judicial use of sedatives cannot be overlooked. If this general plan is followed only occasionally will it be necessary to use the more subtle methods of suggestion, in which the patient

does not enjoy our full confidence. Your attention is invited to the papers appearing in this issue.

R. H. WOOD, M.D.

GOVERNMENT TAKING OVER PRIVATE ENTERPRISE

For many years we have seen the gradual encroachment of government — national, state, and local—on private enterprise. It seems that throughout the land as soon as a new undertaking of any kind has been initiated by the government those placed in charge immediately begin to make plans for “bigger and better” things. Every bureau, department, branch and twig of government wants more and more for “bigger and better” things. This is the fundamental cause of the sad plight of government today when it finds itself almost hopelessly involved.

Little did President Coolidge visualize the present enormous hospital expansion of the Veterans' Bureau when, in 1926, he suggested that any available unoccupied beds in the then Veterans' hospitals might be used for veterans suffering from certain specified diseases not of service origin. Up to that time it was taken for granted by all that the Veterans' hospitals were solely for those veterans suffering from diseases and injuries acquired in line of duty. Comparatively few beds were available and only a small number of veterans fell in the specified class. But that formed the entering wedge to the vastest hospitalization program the world has ever known. Now all veterans of all wars are entitled to hospitalization and treatment for all diseases and injuries regardless of their origin and regardless of the ability of the patient to pay for such services. This is unequal compensation for the veterans themselves since, in order to receive these benefits, a veteran must be sick enough to reach a Veterans' hospital and not too sick to be moved there. Those living near one of the hospitals receive much greater benefits than those at a distance. The veteran taken so acutely ill that he can not be moved to a Veterans' hospital receives no benefit regardless of how deserving he may be. Furthermore, if all available beds are taken up by veterans able

to pay no room is left for poor, deserving veterans unable to pay. Some modification of the present plan will certainly be more equitable and at the same time save an enormous sum of the taxpayers' money.

CHANGE IN POLICY AT ALTO

Due to a lack of funds, the State Tuberculosis Sanatorium at Alto has been unable to admit a sufficient number of patients to keep all of the beds full, although it has on hand a long list of applications. Therefore, the Board of Control, upon the recommendation of the medical superintendent, has opened a full pay ward to which will be admitted those able to pay “actual cost” of hospitalization and treatment. Already eleven such patients have been admitted.

These did not have to wait their regular turn as has been customary since the establishment of the hospital at Alto. This marks a radical change of policy in our eleemosynary institutions. Since “actual cost” includes pay for *medical services* as well as for hospital and nursing care it places Georgia in the practice of medicine for pay.

The law creating this institution provided for a pay ward. This was recognized by those in charge of the hospital when it was first opened and has been complied with from the beginning. There were three classes of patients: free, those able to pay fifty cents per day and those able to pay one dollar per day. All patients were admitted in the order of the receipt of their applications for these respective classes. Vacant beds have existed from time to time since the hospital was first opened but those in charge wisely called the attention of the legislature and people of the state to these vacant beds and the long list of deserving applicants and the legislature, with the approval of the people, provided funds to fill the beds. A magnificent building at Milledgeville was left idle for many months because of the lack of funds to maintain it when a long list of those mentally sick were waiting to get in. It was not opened to pay patients instead of the poor for whom it was intended. The hospitals at Alto and Milledgeville were built and are maintained for the poor. They are charitable—eleemosy-

nary—institutions. They were intended to be such and have been supported by the state for the poor.

Giving hospital and medical care at "actual cost" gives more than "actual cost" since in the "cost" no account is taken of the investment of the taxpayers' money in buildings, grounds and equipment and no account is taken of depreciation. Hence, this gives a certain specified class of citizens a bounty at the expense of the taxpayers and discriminates against the worthy poor since these "pay patients" must receive nursing care and medical services which should be given the poor. In fact, this action by the Board of Control makes of Alto a "cut rate" hospital for the treatment of tuberculosis and since the "cost" figures amount to a little less than what the other hospitals are able to charge it will, if persisted in, close every other tuberculosis hospital in the state. This will hinder rather than help the cause of tuberculosis in Georgia as Alto can care for only a very small percentage of those needing hospitalization and when the present available institutions are closed it will be very difficult to get them opened again should Alto stop taking "actual cost" pay patients. Less than three hundred can be accommodated at Alto, whereas we have one hundred thousand potential cases of tuberculosis in Georgia today with twenty-five thousand of these active cases.

The physicians of Georgia helped to get the law passed creating the hospital at Alto; they have pleaded with the legislature and people year in and year out to support it; *they have examined every patient admitted to Alto*; they have looked after those sent home from Alto. Yet this radical change was taken without any announcement to *them* or to *the public*.

The members of the Board of Control are fairminded, able and unselfish citizens who, at great personal sacrifice, are giving their best efforts to the eleemosynary institutions of Georgia. They have shown wisdom and courage in the face of great difficulties. But in this instance, we believe they have made a mistake. If convinced of error, they will correct it.

P. S.—Since the above was written, the following letter has been received:

November 2, 1932.

Dr. M. M. Head, President,
Medical Association of Georgia,
Zebulon, Georgia.
Dear Doctor Head:

Referring again to the question of pay-patients at the State Tuberculosis Sanatorium, Alto, the Board at its recent meeting adopted the recommendation of the Alto Committee in this connection which is "that a pay department be kept in force and maintained until the law is changed by the Legislature," which, alone, in the opinion of the Committee, has the power to do so. The amount to be charged for such pay-patients to be full cost to the Sanatorium, full cost interpreted as being that amount of money required per patient per day representing the immediate previous period for which cost has been determined.

The Committee is of the opinion that under the present statutes, the Sanatorium has no choice in the matter but to accept such pay patients who may apply, as long as there are unused beds for which maintenance funds from other sources are not available, and who are able to pay the actual cost of maintenance.

I am sure you and the other gentlemen who were present at the conference held on the 21st ultimo appreciate the position taken in this matter. We very much hope we may have your continued co-operation and assistance in every way possible in the great work the sanatorium is undertaking to do.

Sincerely yours,

MRS. BOYCE FICKLEN, JR.,

Secretary-Treasurer,

Board of Control.

Copy to Dr. Allen H. Bunce,
Secretary-Treasurer,
Medical Association of Georgia,
Atlanta, Georgia.

STEINER WARD CONTROVERSY SETTLED

For many months a controversy has been going on between the Fulton County Medical Society and the Steiner Ward of the Grady Municipal Hospital in Atlanta. The late Mr. Albert Steiner, in his will, left a fund for "the poor of Atlanta". The trustees of this fund decided to devote the proceeds to the prevention and cure of cancer. Therefore, they made a contract with the city of Atlanta to establish the "Albert Steiner Ward" at the Grady Hospital for this purpose. This decision of the trustees met with the unanimous approval of the people of Atlanta. However, in the practical application of the principles decided upon, many difficulties arose. These led to misunderstandings. After many conferences, it was decided to limit the facilities of the Albert Steiner Ward to the citizens of Atlanta and Fulton County

as is done in all the other departments of the City Hospital. A few private rooms will be maintained for pay patients. These pay patients will be allowed to select their own physicians and will be charged by the city only for the cost of hospitalization. This solution of the many difficulties met with the unanimous approval of the Fulton County Medical Society.

PERIODIC PHYSICAL HEALTH EXAMINATIONS

In the year 1910 the New York Life Extension Bureau, supported by persons nationally well known and prominent in their chosen line of work inaugurated a campaign in this country that for a nominal annual payment the member received a periodic health examination with an outline of suggestions to prolong life by changes in diet, exercise, rest environment and other hygienic measures. The people accepted it as a new step in medicine and it became a big financial success to the promoters.

Competitive companies organized and were more or less successful, but, like in so many of these schemes the physicians received the short end of the deal. This was the first step in exploiting the medical profession. The younger physicians were selected by the companies to do the examining in the localities wherein the companies conducted their business, as the medical profession as such looked at this innovation rather skeptically; but the public continued wanting it and were willing to pay for it and the medical profession through the A. M. A. in 1922 took official notice of this new, already popular movement in preventive medicine. By a resolution of the House of Delegates the Council on Health and Public Instruction was authorized to prepare forms suitable for use by practitioners of medicine.

The Medical Association of Georgia at its session in Savannah, May, 1928, adopted a form, shorter but just as comprehensive as the one of the A. M. A., to be used by its members for the periodic health examinations. This form was submitted by the Committee on Health and Public Instruction, endorsed by the Committee on Scientific Work and approved by the Council. A practical demonstration was in progress throughout the three days of the meeting.

The foundation has been laid and it is up to us to reap the benefits of a well-organized educational plan in which the majority of the members of the Medical Association of Georgia have participated. The public now wants this periodic health examination. It behooves us, the members of our Association, to be ready and enthusiastic about it,

when the request for a check-up of the physiologic functions and observations of the tissues come from young and old, who are not at the time aware of any disease or defect in its incipient stage, for which they may later have to seek medical relief.

Just now the P. T. A. is waging a campaign to have all of its members examined, but they do not stop there. In a number of cities this medical examination is made compulsory. Teachers, maids and janitors of schools, and also the help in cafeterias undergo a physical examination. This is about as comprehensive a plan as we, as physicians, could ever have hoped for. If we coordinate our efforts with this new movement, an avenue of compensation is opening for us which we should embrace and we should put our best effort into it. Let us be ready when the call comes and make an examination such that the patient is anxious for a comparative examination after a lapse of six months or a year.

The following will be of interest to the reader: "The Fifth District Parent-Teacher Association, advocates that all parents should have themselves physically examined and graded once a year, on their birthdays. This examination should conform to the requirements of the Medical Association of Georgia."

THEODORE TOEPEL, M.D.

SOUTHERN MEDICAL ASSOCIATION MEETING

To the Members of the Medical Association of Georgia:

The Southern Medical Association meets in Birmingham, Alabama, November 15-18, 1932. This is the first time the Association has met in Birmingham since its organization meeting, and is the nearest to Georgia the meeting has been held since it met in Atlanta. So the members of our Association are in a position this year to attend this great meeting at less expense and with the loss of less time than they have been for several years, or probably will be for several more.

There is absolutely no general medical meeting held in this country better than the meeting of the Southern Medical Association. On the program are papers, demonstrations and clinics not only by the most able men of the sixteen southeastern states, but also by picked distinguished physicians and surgeons from all over the country.

The Southern Medical Association is a training school for the younger doctors of the south who are ambitious to appear on the program of medical organizations away from home. It is a most commendable effort for our younger men especially to do

such good work as to get invited to appear on this program, and it should be a pleasant, profitable duty for all of us to give such men a good audience. Of course, the depression has not disappeared and strict economy is the watchword of the hour. However, there are certain things which a doctor cannot afford to neglect and one of these is his occasional attendance upon a big medical meeting where he can get the cream of medical thought and mingle with his confreres and exchange ideas with them. To carry out these objects the Southern Medical Association offers a golden opportunity to Georgia doctors this year. The railroads will have round-trip tickets for one and one-half fare. This amounts to \$9.00 from Atlanta to Birmingham and return, with proportionately cheap rates from other sections of the state. A fine chance is thus afforded for an increase in medical knowledge and also a good excuse is given to get away and forget the depression and let some of our patients get well.

Georgia has always stood at the top among its number of members of the Southern Medical Association and this is a record which we must maintain. Every member of the Medical Association of Georgia is eligible for membership in the Southern Medical Association. The very reasonable dues of \$4.00 not only pays for a membership, but also includes the annual subscription to the Southern Medical Journal. Every southern doctor should first subscribe to his state medical journal and then the Southern Medical Journal and then the Journal of the American Medical Association. There is no better general medical journal published than the official organ of the Southern Medical Association.

Since this is Birmingham's first opportunity to entertain the organization which maintains its home in Birmingham, every effort is being put forth by the Birmingham doctors and the officers of the Association to make the meeting a great success. Besides the scientific program there will be splendid social entertainments. Birmingham is abundantly supplied with good hotels. Make your reservation at once and decide definitely to attend the meeting Tuesday, Wednesday, Thursday and Friday, from the 15th to the 18th of November.

Yours very truly,
FRANK K. BOLAND, M.D.
Councilor from Georgia.

BOOKS RECEIVED

Clinical Dietetics. A textbook for physicians, students and dietitians by Harry Gauss, M.D., Instructor in Medicine, University of Colorado School of Medi-

cine. Assisted by E. V. Gauss, B. A., formerly Assistant Dietitian, Presbyterian Hospital, Denver, Colorado. Contains 490 pages. Publishers: The C. V. Mosby Company, 3523-25 Pine Boulevard, St. Louis, Missouri. Price \$6.00.

Internal Medicine. Its theory and practice in contributions by American authors Edited by John H. Musser, M.D., Professor of Medicine in the Tulane University of Louisiana School of Medicine; Senior Visiting Physician to the Charity Hospital, New Orleans, Louisiana. Contributors are: Doctors Barr, Blankenhorn, Bloomfield, Brown, Chesney, Cooke, Craig, Faust, Kinsella, Krumbhaar, Lemann, McCann, Means, Miller Mitchell, Musser, Pepper, Pincoffs, Reimann, Smith, Strecker, Sturgis, Syndenstricker, V. P., Augusta; Torrey, Van Valzah, Wilder and Wilson. Contains 1316 pages. Publishers: Lea & Febiger, Philadelphia.

ELEVENTH DISTRICT MEDICAL SOCIETY

Semi-Annual Meeting

The society held its semi-annual meeting in the Elk's Hall at Douglas, in the afternoon of October 11. Dr. T. H. Clark, Douglas, President, presided.

Invocation by Rev. C. W. Curry, Douglas, Pastor of the Methodist church.

Address of Welcome by Dr. B. O. Quillian, Douglas.

Response to Address of Welcome by Dr. T. H. Smith, Valdosta.

Scientific Program

1. Address by Dr. Marvin M. Head, Zebulon, President of the Association.

2. Address by Dr. M. E. Winchester, Atlanta, Georgia Department of Public Health.

3. Physiology of Vision—The Cause of Squint and Its Results, illustrated, by Dr. B. H. Minchew, Waycross. Discussed by Dr. T. H. Smith, Valdosta, and Doctor Minchew.

4. Preventative Pediatrics by Dr. Benjamin Bashinski, Macon. Discussed by Dr. M. E. Winchester, Atlanta, and Doctor Bashinski.

5. Relief of Vesicle Neck Obstruction, illustrated with motion pictures, by Dr. Major F. Fowler, Atlanta. Discussed by Dr. S. J. Sinkoe, Atlanta, and Dr. W. F. Reavis, Waycross.

6. Pain in the Right Abdomen—Its Differential Diagnosis by Dr. Kenneth McCullough, Waycross. Discussed by Dr. S. J. Sinkoe, Atlanta, and Dr. T. H. Clark, Douglas.

7. Address by Dr. T. H. Clark, Douglas, President of the Society. Officers elected were: Dr. T. H. Smith, Valdosta, President; Dr. C. M. Stephens, Waycross, Vice-President; Dr. W. F. Reavis, Waycross, re-elected Secretary-Treasurer.

The Coffee County Medical Society entertained all attendants at dinner at the Doucuff Hotel.

W. F. REAVIS, M.D., Secretary.

GEORGIA STATE NURSES ASSOCIATION

Officers

President—Miss Alice F. Stewart, R. N., Augusta.
 First Vice-President—Miss Dora A. Kershner, R. N., Macon.
 Second Vice-President—Miss Lillian Cumbee, R. N., Emory University.
 Secretary—Miss Myrtice Young, R. N., Augusta.
 Treasurer—Miss Jane Van De Vrede, R. N., Atlanta.
 Miss Jane Van De Vrede, R. N.
 Executive Secretary

District Presidents

First—Mrs. Dorothy Treackle, R. N., Savannah.
 Second—Mrs. B. Y. Vann, R. N., Thomasville.
 Fourth—Miss Lucia Massee, R. N., Cuthbert.
 Fifth—Mrs. Sue B. Paille, R. N., Atlanta.
 Sixth—Mrs. Sarah P. English, R. N., Sandersville.
 Seventh—Miss Shirley Hamrick, R. N., Cedartown.
 Eighth—Miss Myrtle Jane Pinson, R. N., Athens.
 Ninth—Mrs. Laura P. Smith, R. N., Gainesville.
 Tenth—Mrs. Olive Barbin, R. N., Augusta.

Headquarters

131 Forrest Avenue, N. E., Atlanta.

PROGRESSIVE STEPS IN THE INTEREST OF BETTER SERVICE

The convention of Registered Nurses, taking place in Albany, October 27-28-29, was in every respect successful, and perhaps epoch-making in some respects.

A forward-looking resolution was adopted by the Georgia League of Nursing Education, meeting in joint convention with the Georgia State Nurses' Association and the State Organization for Public Health Nursing. This resolution requested the Board of Examiners of Nurses to adopt minimum standards as outlined in the 1927 curriculum of the National League of Nursing Education.

Another important resolution endorsed by the League was that the Board of Examiners be requested to raise the minimum standards of nursing schools to meet the minimum requirements of the Red Cross Nursing Service and that those schools not meeting such requirements arrange for sufficient affiliations to make all students eligible to Red Cross enrollment.

In submitting her annual report to the convention, Miss Jane Van De Vrede, educational supervisor of the State Board of Examiners of Nurses, stated that in the academic year 1931-32, 36 per cent of all the theoretical instructions have been given student nurses by physicians; and that computing fees for such instruction on the basis which the Yale University School of Nursing pays its outside teachers and lecturers this instructions would have amounted to \$40,625, or a sum almost as great as Virginia nurses raised for the Chair of Nursing in the University.

"But analyzing this contribution, great as it was in effort, time and money value, it was largely dissipated, for applicants taking State Board examinations more often fail in

subjects taught by physicians. This is not surprising because there is little curriculum planning, usually no outlines given the physician-teachers, no faculty conferences; correlation of subject to practice-nursing is lacking. It is not the fault of the physician, but clearly that of the training school; and, of course, physicians should be paid for instruction if it is desired that they conform in their teaching to the curriculum and the general scheme of the school.

"In analyzing the content of the course being given in schools, it was found that the curriculum varied from 438 theoretical hours in a small school to 1060 hours in one of the larger schools. While the minimum standard of the Board in this regard up to the present time is still 580 hours (the total minimum of the 1917 edition of the Suggested Curriculum of the National League of Nursing Education) all of the larger schools are using the 1927 edition, and some of the small schools are approximating it.

"However, in number of hours alone we cannot put too much faith, for some of the schools giving maximum hours had a large percentage of subject failures in examinations. Hours of teaching count only as they have real educational content. In the matter of practice work, our schools show why we get poor theoretical results. The total hours of practice on night duty, the frequency of night duty, bring up the number of practice hours to a long average work day. *Graduate night duty service* should become the rule in all hospitals maintaining schools."

Miss Geister Says Nursing Must Be Democratized

Miss Janet M. Geister, R. N., director at headquarters of the American Nurses' Association, was an honor guest and speaker at the convention, and was present throughout the three-day meeting, available for conferences and meetings of the Private Duty Section

and other groups. At the evening meeting, Thursday, October 27th, held in the municipal auditorium, Miss Geister's address centered around the nurse in her relation to the community.

"Nursing must be democratized—it is still a luxury" said Miss Geister. "Special nursing is found among barely 7 per cent of the patients with incomes of less than \$1,200 a year; only 12½ per cent of the families with incomes of from \$1,200 to \$2,000, 25 per cent of all cases with incomes from \$3,000 to \$5,000, 38 per cent in the \$5,000 to \$10,000 level, and 68½ per cent of all hospital patients with incomes of \$10,000 a year and over have special nursing care, according to reports of the Committee on the Cost of Medical Care. This committee studied 39,000 people for a year in an effort to secure facts regarding medical, hospital and nursing costs.

"Nurses are essentially democratic, but the use of their service has been aristocratic. How can we democratize nursing service and make it available for all in terms of need? Our present individual service to patients is too wasteful. Too many patients overnursed; too many going without nursing service. Too many nurses overworked, and too many without work.

"*Why not graduate nursing to all hospital patients as well as home patients?* Collective production, or organized staffs. With organized staffs we have control that allows elasticity in times of emergency.

"Doctor McEachern, of the American College of Surgeons, says one of the things needed to bring about good general duty nursing is a shorter working day. He also advocates opportunity for advancement either in salary or position, and provision for enlarging the nurse's educational background. Is this unreasonable?

Miss Geister admitted that the trend is undeniably toward an 8-hour day for both student and private duty nursing service, and said that concentration was being placed on four major points: (1) The cutting down of the number of students in schools of nursing; (2) organization of graduate staffs for the major nursing load in hospitals; (3) organization of graduate nurse staffs to develop with existing agencies wider service for patients in homes; (4) the strengthening and modernizing of the nurse's registry into a community nursing bureau."

Miss Noyes is Guest of the Nurses

Miss Clara D. Noyes, R. N., National Director of Red Cross Nursing Service, was also a guest of the nurses in Albany, speaking at the session of the Red Cross State Committee on Thursday morning, and again at the Red Cross Luncheon held at the New Al-

bany Hotel following the morning session of the Red Cross group. Miss Lillian E. Cumbee, State Chairman, presided on both occasions. Miss Noyes spoke in the interest of Red Cross enrollment, and at the luncheon told of the several memorials nurses have been interested in, including the school of nursing at Bordeaux, France, to which American nurses have contributed practically all of the funds required in building, equipping and maintaining it; the memorial to Jane A. Delano, Red Cross Nurse who died at Savenay in 1919, and the Pantheon de la Guerre, a panorama painted by outstanding French artists and to which an eminent American artist, Henry Wadsworth Moore, a descendant of Longfellow, has contributed a composite figure of an American nurse.

The Jane A. Delano Memorial, dedicated to Miss Delano and the 296 nurses who died in service during the World War, is to be reared on the grounds of National Headquarters of the American Red Cross in Washington, D. C.

Miss Noyes also made a plea for the Annual Red Cross Roll Call, impressing her hearers with the practicality as well as the idealism of the Red Cross in dealing with the problems of relief and unemployment, as well as in carrying out the regular peace-time program of this, the greatest social service organization in the world.

Miss Alice F. Stewart, R. N., of Augusta, President, presided over all sessions of the Georgia State Nurses' Association, and gave her annual address at the Thursday evening meeting, which was open to the general public. She pleaded for a greater understanding between all forces contributing to the welfare of the patient.

At the final business session, Miss Dora A. Kershner, of Macon, was re-elected First Vice-President of the Georgia State Nurses' Association, and Miss Myrtice Young of Augusta, was elected Secretary. Miss Stewart, who was elected in 1931 to serve two years, will continue to head the organization. Miss Lillian E. Cumbee, of Emory University, is Second Vice-President.

The Georgia League of Nursing Education named Miss Dora A. Kershner as President for the coming year. She succeeds Mrs. Eva S. Tupman, who has served as President for the past six years.

The State Organization for Public Health Nursing, which held several sessions, elected Mrs. Olive Barbin, of Augusta, as President for 1933. Mrs. Barbin is Director of Nursing Service for the city of Augusta. The S. O. P. H. N. presented a playlet, "It Has Been Done," on Friday morning, October

(Continued on page 462)

WOMAN'S AUXILIARY

OFFICERS

President—Mrs. S. T. R. Revell, Louisville.
 President-Elect—Mrs. J. Bonar White, Atlanta.
 First Vice-President—Mrs. N. Peterson, Tifton.
 Second Vice-President—Mrs. C. Thompson, Millen.
 Third Vice-President—Mrs. J. W. Simmons, Brunswick.

Recording Secretary—Mrs. J. E. Penland, Waycross.
 Corresponding Secretary—Mrs. F. B. Rawlings, Sandersville.
 Treasurer—Mrs. Chas. Usher, Savannah.
 Parliamentarian—Mrs. Charles Hinton, Macon.
 Editor—Mrs. C. W. Roberts, Atlanta.

FIFTH DISTRICT MEETING

The Woman's Auxiliary to the Fifth District Medical Society met at the Academy of Medicine, 38 Prescott Street, Atlanta, Wednesday, October 12, 1932. Mrs. Olin S. Cofer, District Manager, presided.

Mrs. C. W. Roberts, Editor, read greetings and a paper on the organization of the State Auxiliary by Mrs. S. T. R. Revell, President of the Auxiliary.

Constitution and By-Laws were adopted, after which reports from Fulton County and from the District as a whole were given. Mrs. Cofer explained what she had done to date as Organization Chairman of the District and her future plans. Two additional officers were elected: Mrs. Claud Victor Van Sant, of Douglasville, Vice-Manager, and Mrs. H. H. Askew, of Atlanta, Secretary.

Mrs. Bonar White, President-Elect and State Chairman of Organization, emphasized that one could not be a good member of an organization unless she understood the purposes and activities of that organization, and was prepared, through study of Health Education problems and of the State Program by attendance at Auxiliary meetings, to explain to other eligible wives why they should become members. Mrs. White stressed that with an outline of Health Education prepared by the Medical Association of Georgia, every wife of a physician in Georgia could assist in the fulfillment of our tasks by calling the attention of members of her clubs to the Mother-Welfare program and requesting her organization to accept the offer of the State Auxiliary. These programs have been mailed to State organizations requesting that they send the name, date, time and place for such programs, if they desire to have it. The importance and significance of her request would rest on her membership in a county Auxiliary or in the State-at-large. The President-Elect also suggested that we constantly prepare members to accept chairmanships of Health in lay clubs, P. T. Associations, etc., especially when we ourselves have such chairmanships. She explained why Mother-Welfare was selected and how details were being arranged throughout the State for carrying out the program.

Dr. C. H. Richardson, President-Elect of the Association, praised the Auxiliary work and extolled the activities of some of the small Auxiliaries he had visited. He graciously encouraged the Fifth District Auxiliary.

As papers on Mother-Welfare were to be read at

the Fifth District, the Auxiliary, upon invitation, was given the pleasure of hearing them.

MRS. GEORGE M. MURRAY

EIGHTH DISTRICT MEETING

The Woman's Auxiliary to the Eighth District Medical Society met at the home of Dr. and Mrs. Dan M. Carter, Madison, on August 10, 1932. Mrs. W. C. McGeary, Madison, was joint hostess with Mrs. Carter. Refreshments were served as the members arrived. Mrs. Carter's home was decorated with gorgeous flowers.

Mrs. B. C. Teasley, Hartwell, District Manager, presided.

Invocation by Mrs. W. I. Hailey, Hartwell.

Address of Welcome by Mrs. Dan M. Carter, Madison.

Response to Address of Welcome by Mrs. Stewart D. Brown, Royston.

Piano solo by Mrs. Geo. S. Clark, Hartwell.

Mrs. D. N. Thompson, Elberton, read an article entitled "Vision" by Mrs. S. T. R. Revell, Louisville, President of the Auxiliary.

History of the Eighth District Auxiliary by Mrs. Paul Holliday, Athens.

Motion carried to make the History of the Eighth District Auxiliary a permanent record of the Auxiliary by incorporating same in the minutes.

Music by Mrs. W. A. Johnson, Elberton.

Address by Dr. Marvin M. Head, President of the Association.

Reports were submitted by the Clarke, Elberton and Hart county Auxiliaries.

Mrs. L. L. Whitley, Crawford, read a message from Mrs. J. Bonar White, Atlanta, President-Elect of the Auxiliary.

Mrs. D. N. Thompson, Mrs. Paul Holliday, and Mrs. W. I. Hailey, Nominating Committee, submitted the following report:

Mrs. W. A. Johnson, Elberton, District Manager.

Mrs. D. M. Carter, Madison, District Manager-Elect.

Mrs. J. I. Jenkins, Hartwell, Secretary-Treasurer. Mrs. Stewart D. Brown, Royston, Parliamentarian.

Mrs. B. C. Teasley introduced new officers and asked for the hearty co-operation by all members.

Motion carried authorizing the Secretary-Treasurer to purchase a book to be used as a permanent record for the minutes of meetings, Constitution and By-

Laws, and the History of the Eighth District Auxiliary.

Motion carried to invite the officers of the Tenth District Woman's Auxiliary to attend the next meeting of the Eighth District Auxiliary.

Meeting adjourned to join the members of the Association at a barbecue at the Madison Country Club.

MRS. B. C. Teasley, Manager.

MRS. J. I. JENKINS, Secretary.

NINTH DISTRICT MEETING

The regular semi-annual meeting of the Woman's Auxiliary to the Ninth District Medical Society met in Jefferson on Wednesday, September 21st, with the Jackson County Auxiliary as host.

Mrs. C. L. Ayers, District Manager, called the meeting to order.

Mrs. S. A. Boland extended a cordial welcome to those present.

A message from the State President was read, in which she reviewed the work and aims of the State Auxiliary.

Mrs. J. Bonar White was introduced and spoke of the needs of organization. Mother-Welfare as a part of the Public Health Education program was particularly stressed.

Dr. C. H. Richardson, the speaker from the Medical Association of Georgia, spoke of the year's program outlined for the Auxiliary and Association, and asked the cooperation of all Auxiliaries in carrying this program through.

Mrs. C. H. Richardson, Mrs. J. Bonar White and Mrs. Cofer were among the visitors present.

During the business meeting, the following Counties gave excellent reports: Barrow, Cherokee, Pickens, Habersham, Hall, Jackson and Stephens.

The Committee on Constitution and By-Laws gave their report. The same being adopted by all Auxiliaries in the district.

Mrs. S. T. Ross, Scrapbook Chairman, urged that material be sent her in order to being work.

All counties will donate funds to buy a uniform scrapbook.

At the conclusion of the business meeting Mrs. White distributed various leaflets on Health Education.

The Auxiliary was invited to join the doctors for lunch, which was a delightful barbecue served in a beautiful wooded section on the grounds of Martin Institute.

MRS. W. H. GARRISON, Secretary.

OBITUARY

Mrs. Walter Jackson Freeman, Philadelphia; President of the Woman's Auxiliary to the American Medical Association; died at her home on October 27, 1932, after an illness of several weeks' duration. Her father was the late Dr. Wm. Williams Keen, of Philadelphia, her husband was a practicing physician, and she has two sons engaged in the practice of medicine. Mrs.

Freeman took an active interest in civic affairs and perhaps no woman was more closely allied with the medical profession or more persevering in the activities and work of the Auxiliary. "The Woman's Auxiliary to the American Medical Association has lost an inspiring and able leader, the medical profession an understanding and devoted friend."

COMMUNICATIONS

Warm and Dry Climate in Georgia

To the Editor:

A patron of the business branch wishes to locate in a warm and dry climate. His daughter, three and one-half years old, has had an operation for mastoiditis. She has since developed head colds.

Can you tell us of locations in your State where the climate will benefit this condition. We will appreciate any information.

The Business Branch of the Public Library.
34 Commerce St., Newark, N. J., Oct. 22, 1932.

USE OF THE WORD "DRUG" INSTEAD OF THE WORDS "DOPE" OR "NARCOTIC"

To the Editor:

Those of us engaged in pharmacy feel that the indiscriminate use of the word "drug" where "narcotic" or "dope" should be used is a reflection on an honorable business and profession and tends to degrade it in the minds of many lay readers. As defined in the National Food and Drugs Act, a drug is an article used for the purpose of curing, mitigating, or preventing disease in man or animal.

News writers and headline writers frequently refer to "drug" addicts, "drug" fiends, and "drug" raids when they mean narcotic (or "dope") addicts, narcotic fiends, and narcotic raids.

There is no objection on the part of the pharmaceutical profession and the drug trade to the publication of the misdeeds or misadventures of "dope peddlers" or "dope addicts," but to describe them as "drug peddlers" or "drug addicts" does an injury, so we are asking all editors to help discontinue the practice of using the word "drug" where the word "dope" or "narcotic" should be employed. There are assurances from the editors of newspapers that the subject will have their attention.

The practice is widespread in medical and pharmaceutical literature. Nearly every one having to do with such publications has been guilty of this misuse of the word "drug", even those of us who are seeking a discontinuance of the abuse.

If the editors of the medical journals would use the word "narcotic" or "dope" instead of "drug" in news items of raids or convictions, and in the columns advertising treatment for narcotic addicts, it would be a material aid in correcting an objectionable practice. Your cooperation to this end is earnestly requested.

ELI LILLY AND COMPANY
Indianapolis, Ind., Oct. 24, 1932.

GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. ABERCROMBIE, M.D., *Director*

THE ECONOMICS OF SANITATION

No business can be prosperous without a healthful environment. No industry is without serious economic loss where a healthful environment is not obtained. What profit is there if a man is employed to work twelve months and through physical impairment he only works eleven? Then again what profit is there when a man works twelve months but through physical unfitness he is only fifty per cent efficient? Lost labor due to sickness is the greatest economic factor in industry today. Each individual in an industrial establishment is an integral part of a great profit making machine. When the health of one individual is impaired, this great machine is losing efficiency. Yet many industrial executives employ an expert machinist to specialize in finding mechanical defects in machines. Why then should not such care be taken of human mechanisms? This care can be simply provided by a healthful environment. Such an environment is sanitation, for sanitation is the basis of a healthy body, physically fit to properly perform at our regular daily routine.

In this enlightened age it is recognized by governmental and industrial executives that sanitation must be provided before manpower is assembled to accomplish any great project.

An outstanding illustration of this is the great project of the Panama Canal which cost nearly four hundred million dollars. This project was twice undertaken by the French Government and twice failed because sanitation was not first provided. The French undertook this task in 1881 and after a period of six years, and an expenditure of two hundred million dollars, with only a small part of the work completed, the project was abandoned. Thousands of lives were lost due to lack of preliminary sanitation and from such diseases as malaria and yellow fever. Typhoid fever also took its toll due to impure water. In other words, in a period of six years certain diseases, preventable by simple sanitation, cost in addition to thousands of human lives the enormous sum of over two hundred million dollars. It has been estimated that 25 per cent of the total number employed in the six-year period died from yellow fever alone. Consequently, after a period of six years the canal company was declared bankrupt, the cause of which was due to lack of sanitation. A new canal company was formed a few years later and operated until 1893 when operations were again suspended due to the same cause.

Meanwhile the United States Government became interested in the project, secured a strip of land from the Republic of Panama, now known as the canal zone and started construction of the canal in 1906 and it was completed in 1915. The United States Government realized that before successful work could be accomplished disease must be removed by sanitation. This involved purification of drinking water and eradication of mosquitoes. The United States Government took immediate steps to improve sanitary conditions generally throughout the canal zone. Water supplies were improved. Human waste was properly disposed of and disease bearing mosquitoes were exterminated. So vigorously was the work of sanitation prosecuted that within two or three years the Canal Zone was transformed from one of the most pestilential regions to a region of normal healthfulness and today it is considered a desirable winter resort. It does not take a statistician to understand the commercial value of sanitation as an investment in this instance. Today the Panama Canal stands as a monument to civil engineering and sanitary engineering. From those pioneers who from 1906 to 1915 blazed the trail for public health through sanitation we owe a debt of gratitude. Large business enterprises today owe financial success to present day sanitation patterned from this pioneer work.

Many instances could be cited where nations have fallen, armies have been defeated and commercial supremacy has been lost due to insanitary environment jeopardizing the health of the public. The recent progress of sanitation has become so rapid that the subject of preventive medicine has become a specialty and built upon the fundamental principle of disease prevention through sanitation. In relation to the science of modern economics sanitation has become a cornerstone for comfort and prosperity. No great enterprise today is considered without sanitation as the first principle. In peace and in war it is fundamental.

Not many years have passed since the flower of our manhood was called to make the "world safe for democracy." America was unprepared for war. The first thing necessary was to raise an army large enough to win the greatest war in history. The names of about ten million men were listed for service. Many of these were unfit for service. Many of these were unfit because of physical defects due to results of insanitary

environments. For those accepted it was necessary to build cantonments in all parts of the country. These men had to be maintained physically fit. Selections then of sanitary locations and sanitary maintenance of army cantonments became the paramount problem. Plants for purification of drinking water, plants for disposal of sewage and provision for mosquito eradication by drainage were necessary. Money was not spared in providing such sanitary facilities for proper maintenance of the most efficient army in the world. Money could not have been more advantageously expended. The result was an army of millions of men with so little typhoid fever, malaria and other preventable diseases that sickness was practically negligible. This was the army that eventually made the world safe for democracy. This is only another illustration of sanitation as a good financial investment.

Public health obtained through modern sanitation has ceased to be a matter of guesswork. It has attained a scientific standing based on years of research. Health is the greatest of assets and it cannot be measured in monetary terms, nor can it be purchased by an individual once it is lost. It pays more handsome dividends than stocks and bonds. Its value never fluctuates but is constant. An investment in health is not speculative but a security of profits. We cannot compromise where health is concerned, there is only one course. That course is action. We can no more maintain health without sanitation than we can expect an airplane to mount the skies without gasoline, or a locomotive to attain the grade without steam. Sanitation is a force, not a sentiment; a course of action, not a creed. There has been no time within the memory of the present generation when the need for sanitation has been so great. When the human body is debilitated by famine, when mentality and moral courage are depreciated by sorrow and poverty, the adversaries of public health find least resistance, and the physical body relinquishes its right to survive. Now is the time, especially for the town resident, to take stock of his environment. For there may lurk within the slovenly slums of his own city and within close proximity to his premises, augmented by recent poverty, ignored by civic indifference, hidden by official evasion those filth-borne diseases due entirely to an insanitary environment. However lamentable is the truth, civic pride often extends no further than the paved streets, the city park is a subterfuge, and the statue of the historic and courageous statesman on the town square only a delusion. For where there are no sewers and only earthen excavations for

drinking water, filth-borne diseases inevitably lurk in formidable guise. Typhoid fever which annually takes its enormous toll in Georgia originates under such environment. Dysentery and other filth-borne diseases which attack our infants are largely due to such conditions in our towns almost under our eyes.

It is suggested that you make investigation, and if this is correct, stimulate the interest of others and see that your county board of health, mayor and council take cognizance of this and request a sanitary engineering survey by your State Department of Public Health so that such conditions may be remedied.

NEWS ITEMS

Dr. Samuel F. Rosen, formerly of Augusta, announces his removal and opening of offices at 4 East Jones Street, Savannah. Practice limited to internal medicine and dermatology.

Dr. D. L. Wood, Dalton, City Health Officer, tendered his resignation to the mayor and council at a recent meeting. It was stated that the heavy duties of his private practice were assigned as the reason.

Dr. E. G. Ballenger, Atlanta, was the principle speaker before the Kiwanis Club at the Ansley Hotel Atlanta, on October 11th.

Miss Alice S. Meadows, Atlanta, Georgia Department of Public Health, recently taught a class in midwifery at the court house in Baker county. Certificates were given to sixteen applicants.

The Fulton County Medical Society met at the Academy of Medicine, Atlanta, on October 20th. The following titles for papers and case reports were on the program: "The Effect of Adrenalin Upon the Pulse Deficit in a Case of Auricular Fibrillation—Case Report", Dr. R. S. Leadingham, Atlanta; "Length of Legs Equalized by Femur Shortening—Illustrated with Lantern Slides", Dr. Lawson Thornton, Atlanta; "Cystoscopic Resection of Prostate in a Feeble, Aged Patient After Two Years' Suprapubic Drainage", Drs. E. G. Ballenger, O. F. Elder and H. P. McDonald, all of Atlanta; "Transurethral Relief of Prostatic Obstruction—Illustrated with Motion Pictures", Dr. M. F. Fowler and Dr. S. J. Sinkoe, both of Atlanta; "Yesterday, Today and Tomorrow in Medicine", Dr. C. W. Roberts, Atlanta. Discussions were led by Dr. Glenville Giddings, Dr. Lon Grove, and Dr. R. H. Oppenheimer, Atlanta.

Dr. James Morley has been appointed Professor of Surgery and Attending Surgeon to the New York Polyclinic Medical School and Hospital, New York City.

The Georgia Medical Society, Savannah, held its regular meeting on October 25th. Titles of papers on the scientific program were: "Bandl's Contractile Ring—Case Report", Dr. Walter A. Norton, Savannah. Dr. Lawrence Lee, Savannah, led the discussion. "Mononucleosis—Case Reports", Dr. Lee Howard, Savannah.

The Randolph Medical Society met at Cuthbert on November 3rd. Dr. T. F. Harper, Coleman, read a paper on "The Treatment of Typhoid"; Dr. J. C. Patterson, Cuthbert, gave a case report.

The Macon Medical Society met at the Macon Hospital, Macon, on October 18th. Dr. G. Y. Massenburg and Dr. J. D. Redwine, both of Macon, gave clinical case reports; Dr. Fred L. Webb, Macon, read a paper entitled "Effort Syndrome". Dr. W. W. Chrisman, Macon, led the discussion.

Dr. B. L. Smith, Forsyth, has written an article for the *Forsyth Advertiser* in which he states that "I have a very old volume of history of medicine that contains several pages that may be interesting to the citizens of Forsyth and Monroe county." He reviews the history of the Southern Botanical Medical College of Georgia, which began its course of lectures and teaching at Forsyth in 1839.

Lectures on pediatrics were given at the Wesley Memorial Hospital, Emory University, on the dates with subjects as follow: October 4th, "Artificial Feeding, Weaning, Sunshine and Cod Liver Oil", Dr. L. D. Hoppe, Atlanta; October 11th, "Gastro-Intestinal Disturbances", Dr. Wm. H. Kiser, Atlanta; October 18th, "Preventative Medicine, Vaccination, Immunity, Resistance, Common Colds and Preventative Measures in Diphtheria, Typhoid Fever, Smallpox, Scarlet Fever and Measles", Dr. Wm. Willis Anderson, Atlanta; October 25th, "The Pre-School Child-Malnutrition", Dr. M. Hines Roberts, Atlanta; November 1st, "Emergency Measures, Convulsions, Accidents, Burns and Poisons", Dr. L. H. Muse, Atlanta; November 8th, "Care and Diseases of the Ear, Nose and Throat", Dr. W. C. Warren, Jr., Atlanta; November 15th, "Skin Diseases", Dr. R. G. McAliley, Atlanta; November 22nd, "The Nervous Child, Habit Formation", Dr. W. L. Funkhouser, Atlanta.

The Eleventh District Medical Society will hold its next meeting in Waycross in April.

The members of the Spalding County Medical Society and others were entertained at a banquet on October 18th at the Strickland and Son Memorial Hospital, Griffin. Dr. Allen H. Bunce, Atlanta, delivered an address on "The Various Types of Nephritis". He also discussed the so-called "Wholesale System of Providing Medical Service".

Dr. Ralph H. Cheney announces the removal of his office to the Shirley Apartment, 1001 Greene Street, Augusta.

Dr. Howard Bucknell announces the opening of his office at 407 W. W. Orr Doctors' Building, 478 Peachtree Street, N.E., Atlanta.

The Georgia State Nurses' Association held its twenty-sixth annual session at Albany on October 27-28-29. The Georgia League of Nursing Education and the Georgia Public Health Nurses met with the Association. Other organizations represented were: The American Nurses' Association, National Organization of Public Health Nursing, the Out-Patient Clinic of New York City, and the American Red Cross Nursing Service. Many luncheons and other social features were arranged by the local nurses and members of the Woman's Auxiliary to the Dougherty County Medical Society.

The Fulton County Medical Society amends Chapter VI of its By-Laws by adding Section 10, which reads as follows: "Section 10. Committee on Medical Economics. This Committee shall consist of seven or more members, appointed annually by the President, whose duty it shall be to impartially study the economic problems of the medical profession. It shall report to the Society its findings and recommendations."

The Annual Report of the American College of Surgeons shows that the following hospitals in Georgia have been approved: ATLANTA—Grady Hospital, Crawford W. Long Memorial Hospital, Georgia Baptist Hospital, Henrietta Egleston Hospital for Children, Piedmont Hospital, St. Joseph's Infirmary. U. S. Veterans' Administration Hospital, Wesley Memorial Hospital. Other hospitals in Georgia which have been approved are: Phoebe Putney Memorial Hospital, Albany; Athens General Hospital, Athens; University Hospital, Augusta; United States Veterans' Administration Hospital, Augusta; Wilhenford Hospital for Women and Children at Augusta; Coker's Hospital, Canton; Columbus City Hospital, Columbus; Patterson Hospital, Cuthbert; Middle Georgia Sanitarium, Macon; Macon Hospital, Macon; Millen Hospital, Millen; Wise Sanitarium, Plains; Harbin Hospital, Rome; McCall Hospital, Rome; Central of Georgia Railway Hospital, Savannah; United States Marine Hospital, Savannah; John D. Archbold Hospital, Thomasville; Atlantic Coast Line Hospital, Waycross; Ware County Hospital, Waycross.

Staff of the St. Joseph's Infirmary, Atlanta, held its regular monthly meeting in the nurses' dining hall on October 25th. Dinner was served.

The Medical Staff of the Atlanta Tuberculosis Association met in the Community Assembly Room, 282 Forrest Avenue, N.E., Atlanta, on October 27th. Dr. W. W. Jones, Atlanta, gave a case report. Dr. C. C. Aven, Atlanta, led the discussion. Dr. C. H. Holmes, Atlanta, gave a report on a Pneumothorax Clinic with demonstration.

Dr. and Mrs. W. H. Garrison, Clarkesville, entertained the members of the Habersham County Medical Society at their home on October 13th.

The Georgia Urological Association held its semi-annual meeting at Americus on October 27th. The following doctors read scientific papers: Dr. Willis P. Jordan, Columbus; Dr. Montague L. Boyd, Atlanta; Dr. M. K. Bailey, Atlanta; Dr. M. F. Fowler, Atlanta; Dr. Samuel J. Sinkoe, Atlanta; Dr. E. G. Ballenger, Dr. O. F. Elder and H. P. McDonald, all of Atlanta; Drs. W. A. and W. E. Uchurch, Atlanta.

Dr. H. G. Huey, Homerville, has been appointed on the State Board of Medical Examiners.

The Fulton County Medical Society met at the Academy of Medicine, Atlanta, on November 3rd. The following titles for papers and case reports were on the scientific program: "Results of the Treatment of 'Caking' in the Female Breast—Case Report", Dr. John Funke, Atlanta; "Treatment of Osteomyelitis", Dr. M. T. Meyers, Atlanta; "Group Hospitalization Plan", Mr. W. D. Barker, Superintendent of the Georgia Baptist Hospital, Atlanta; "Hypoglycemia Associated with Primary Liver Cell Carcinoma", Dr. Joseph C. Massee, Atlanta. Discussions were led by Dr. Mark S. Dougherty, Dr. R. S. Leadingham, and Dr. L. Minor Blackford, all of Atlanta.

The staff meeting of Grady Hospital, Atlanta, was held in the Senior Lecture Room on November 1st. Titles of papers read were as follows: "Transurethral Resection of Prostate", Drs. E. G. Ballenger, O. F. Elder and H. P. McDonald, all of Atlanta; "Treatment of Cervical Ribs", Dr. T. C. Davison, Atlanta; "Demonstration of Gross Specimen", Dr. Jack C. Norris, Atlanta. Dinner was served at 6:30 P.M.

THE TREATMENT OF DIABETES MELLITUS

(Continued from page 449)

education, when the patient is not under the direct supervision of a physician the diabetes will usually not be controlled. Only the main points in the education of the patient will be mentioned. Instruction as to the nature of the disease and the fundamentals of a satisfactory diet is the foundation. Patients must own accurate scales for weighing their food and those taking insulin are, with a few exceptions, taught to give their own insulin. A well trained patient always knows how to test the urine for sugar and acetoacetic acid. Such patients should know the dangers of physical and mental disturbances which may aggravate the diabetes and an emergency schedule which will take care of those situations.

NURSES' DEPARTMENT

Progressive Steps in the Interest of Better Service

(Continued from page 456)

28th, under the direction of Mrs. Anne C. Rivers, President. This dramatized the organized service rendered by the public health nurse to the individual, the family and the community. Preceding the sketch, a group of colored midwives, under the direction of Mrs. Elizabeth Crawford, Public Health Nurse of Dougherty County, gave spirituals which were greatly enjoyed by the visitors.

Miss Freida Grefe, of Savannah, was named Chairman of the Private Duty Section of the G. S. N. A., and Mrs. Effie Akerman, of Augusta, who presided over all sessions of the Section during the absence of Miss Lucy M. Hall, Chairman, was re-elected as Vice-Chairman. Miss Eva Chalkley, of Columbus, was named Secretary.

The convention voted to go to Augusta in 1933.

The Journal has an inquiry for a physician who may be interested in a location to practice in a populous section which includes five small towns. No practitioner resides in this community. If interested, write the Secretary-Treasurer for additional information.

RADIUM DEPARTMENT GEORGIA BAPTIST HOSPITAL

This Department is devoted to the diagnosis and treatment of conditions in which the use of radium is indicated. It has an ample supply of radium with various forms of applicators.

This Department is the outgrowth of seventeen years' personal experience in radium therapy. Rates are reasonable.

*For further information communicate with
W. D. Barker, Superintendent or Dr. O. D. Hall,
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A HISTORIC SKETCH OF THE FULTON COUNTY MEDICAL SOCIETY

WILLIAM S. GOLDSMITH, M.D.
Atlanta

Preliminary Note—In the preparation of this paper, your historian found it difficult to segregate data relating to the origin and career of the Atlanta Medical Society, without constant allusion to the Atlanta Medical College and the Atlanta Medical and Surgical Journal. All three of these institutions were founded in the same year by the same group of men. The faculty of the medical school owned and edited the Journal, and the Medical Society also was largely dominated by them. The liberty is taken to broaden the scope of the assigned subject in order to make it a connected narrative. The officers of the Society join the writer in the request that any additional authentic information concerning the early history of this organization, would be promptly forwarded to the Secretary, Dr. William Howard Hailey.

The Atlanta Medical Society was organized in 1855. The Georgia Medical Society, in Savannah, was chartered in 1804, and the Richmond Academy of Medicine, in Augusta, was also chartered in 1808, but did not actually function until 1825.

The Cobb County Medical Society was founded in 1850 and the Warren County Medical Society in 1853.

I am in possession of the roster of officers of the two latter societies, kindly supplied by Dr. J. M. Hull, of Augusta, the author of a recent paper on the "History of the Richmond County Medical Society". The five societies enumerated above, seem to be the senior county medical organizations in Georgia. The Savannah Society was the first to own its home and library, and the Fulton County Medical Society the only other like institution in the state to own a home and library.

There exists a great similarity in the medical history of Augusta and Atlanta. Each city possessed thriving medical schools, excellent medical journals, and active medical societies.

All honor must be paid the historic city

of Augusta in the development of medical education and medical organization, and the names of Eve, Dugas, Ford, Campbell, Anthony, Doughty and many others will live for all time in the annals of Southern medicine.

In a comprehensive examination of reliable records, bearing upon the subject of this paper, I was impressed with the quality and quantity of medical literature originating in Georgia nearly three-quarters of a century ago. In many instances the cultural side of the profession was striking, while the printed word was presented with a typographic excellence scarcely inferior to that of the present day.

As a rule, the leaders in all professional activities seventy-five years ago were men enjoying the advantages of a college or university education, and those having been denied such a valuable foundation, embraced every opportunity in the acquirement of a self-education. Their familiarity with the classics in general literature was evident in the political forum, and in addresses and theses on medical and surgical subjects.

Our contemporaries in that era, cultivated a dignified leisure, and formed habits of repose and study, uninterrupted by raucous radio programs, and not harassed by the outcome of a football championship, or indeed, by the approaching maturity of certain obligations on the family automobile.

Much has been written in fiction and in personal reminiscences of the traditional accomplishments of the old family physician, and seldom was the picture overdrawn. His position, as the oracle of the community and as the final arbiter on many controversial subjects was undisputed. His wisdom, mature judgment and advice, were sought in delicate and serious family and domestic situations, where even the kind offices of the clergy were debarred.

Their physical recreation was limited to an occasional day afield, with rod or gun, and their punctual attendance upon occasions of a political character, seemed to supply all necessary social diversion.

With becoming acknowledgment of the

traditions of those two beautiful cities of the valley of the Savannah, I feel that it must be conceded that the magic city of Atlanta, resting solidly on the granite of the Piedmont escarpment, should be accorded proper credit in aiding the development of medicine in the Southeast during the later half of the nineteenth century, and continuing until the present time.

We, too, revere the names of our brilliant predecessors in this Society—Logan, the Westmorelands, Johnsons, Love, Armstrong, Alexander, Taliaferro, Calhoun, Todd, and many other illustrious men of later generations.

A city, scarcely ten years old, with a population not exceeding 10,000 inhabitants, resolutely put forward in one year, three institutions of merit. The ruthless hand of war destroyed all three projects, and in 1861 to 1865, there was a complete suspension of the Society, Journal and College.

While Savannah and Augusta suffered from pestilence, flood and fire, and have gallantly effaced the scars of such afflictions, neither was ravished by the torch of the invader to the extent of almost complete extermination. Our people in 1865, unafraid, defiant of all adverse circumstances of the conquered, aggressively attacked the problems of rehabilitation, reconstructed this city, and revived all her institutions, including our beloved medical society. It is a source of wonderment that such a stupendous task could be carried to ultimate completion.

Times were hard, and people poor and with all avenues of investing capital closed to them. Homes, schools, businesses, private fortunes, all were swept away. Man power was sadly crippled by reason of casualties on the field of battle and by the menacing responsibilities involved in the recent liberation of thousands of undisciplined slaves.

Would it not be well for us, in these days of economic distress, to turn back the pages of history and learn a lesson in self-denial, and develop the ability to face a serious situation, without grumbling and without loss of faith in our social fabric?

The tattered remnants of the Confederacy literally turned the sword into the ploughshare, and bravery overcame the burdens of the reconstruction period. Our forbears met the issue in those dark hours of devastation with a resoluteness and courage not exceeded by any people in any land in the history of the world.

In an exhaustive study of all available data, nothing was found indicating the

names of the officers of the Atlanta Medical Society for the year of its organization, 1855 to 1861. There is reason to believe, however, that Dr. J. P. Logan was the first president. This conclusion is drawn from the fact that he read a paper, by special request, before the society on, "Medicine as it is," which was published in the first issue, September, 1855, of the Atlanta Medical and Surgical Journal.

The proceedings of the society were published with more or less regularity in the Journal until both were suspended in 1861. Strangely, and probably due to lack of space and custom, there was scant mention of any individual, except the name of the essayist, and the occasional name of the reporter, who transcribed briefly the minutes of the meetings.

When the hectic days of the revival of the College, Society and Journal in 1866 arrived, many amusing and irritating incidents occurred.

The rebuilding of the stricken city, with the attendant disorder due to the presence of a horde of camp-followers and irresponsible negroes, brought a large number of charlatans and irregular practitioners to prey upon a class, already debauched in an orgy of dissoluteness. The records show that the Atlanta Society of Medicine, a new name, stood steadfast, and strove to protect the public and rid the city of these undesirable elements.

In the late sixties and early seventies, the society passed through a perilous period, Professional animosities, frequently resulting in personal encounters, finally invaded the hitherto compact and harmonious, faculty of the Atlanta Medical College.

This occasion is inappropriate to recount these incidents, except to record that certain discordant elements in the faculty, and the dissatisfaction existing in the society, almost precipitated a situation endangering the existence of the society. The controversies extended to the State Medical Association in 1871, a degree of bitterness developed which threatened also the life of the parent body.

At this period, and this is an interesting circumstance, a Fulton County Medical Society was organized. This hybrid society was instituted by a few malcontents who were out of sympathy with the conduct of the Medical College. This opposition society dissolved after a few months of unhappy and unprofitable existence.

Emerging from this chaotic experience, we salute the Atlanta Medical and Surgical Union, another new name. This name was

probably suggested by the consolidation of the two opposition societies, following closely the historic obstinacy of all rival medical organizations, when amicable relations are sought to be restored.

This name was retained by the society exactly one year, and in 1873, the name of the Atlanta Academy of Medicine was substituted.

In 1867, 1869, and 1872 three leading men of this society traveled extensively in Europe in quest of a wider clinical field in their respective specialties. I have reference to William S. Armstrong, Willis F. Westmoreland, Sr., and Abner W. Calhoun. These pioneers braved the long and expensive passage across the seas to grasp the advantages of the great hospitals in the old world. The polished Armstrong, after touring the medical centers of Great Britain, settled for a long stay in Paris. The brilliant Westmoreland, confined his studies to the clinics in Paris and was an apt pupil of the master surgeons of France.

That courtly gentleman, Calhoun, pursued the study of ophthalmology in Vienna and Berlin. As an example of the breadth of their pursuit of knowledge, I recall Doctor Calhoun's interesting clinic report of a case of "Suprapubic Puncture of the Male Bladder", and the "Resection of Long Bones", due to wounds received in the War of 1870."

Doctor Westmoreland described "Operations upon the eye", and Doctor Armstrong wrote interestingly on "Phthisis Pulmonalis." These gentlemen contributed a monthly letter to the Atlanta Medical and Surgical Journal, and the correspondence were models in the clarity of their description of cases coming under their observation.

In the years following many of our members enjoyed the pleasure of visits to the gay European capitals, always returning with a broadened vision and the inspiration to grapple with problems with renewed zeal.

The activities of the Atlanta Society of Medicine in the decade between 1880 and 1890 are almost unknown, as the information is meagre and unsupported by printed records.

It may be said, however, that its presidents were alert and ambitious young physicians, who had recently located in the city—Elkin, Cooper, McRae, Hardon, Nicolson and Kendrick were quickly established in large and lucrative practices, and all were connected with the two existing local medical schools, the Atlanta Medical College and Southern Medical College.

I joined the society in 1893, attending the first meeting in a large office room in the State Capitol Office Building, Marietta and Forsyth Streets, now the site of the Western Union Building. The paper of the evening was on "Gonorrhoea in the Male", by Dr. Floyd McRae. As this disease was generally treated by all present, it provoked a heated discussion lasting over two hours. The president was Dr. W. S. Elkin.

In the winter of 1893, we moved to the old Y. M. C. A. Building, now the Chamber of Commerce, Pryor Street and Auburn Avenue. Our rent was \$10.00 a month, "including the use of the piano." The landlord insisted upon this clause in the contract. The instrument was never used except as a receptacle for coats and hats.

We remained at the Y. M. C. A. in 1894 with Dr. J. W. Duncan as President, and 1895 with Dr. Charles D. Hurt as President.

In 1896 we moved to the Knights of Pythias hall in the old Connally Building, Whitehall and Alabama Streets. The President was Dr. R. R. Kime, and our rent was \$7.00 a month.

In 1897, Dr. G. H. Noble was President, and we were broke. We secured a vacant room in the Equitable, now the Trust Company of Georgia Building, rent free. Chairs from the adjoining offices were loaned us. As we were tenants at will, the office was rented in midsummer, and the society was practically thrown into the streets.

I was chairman of the committee appointed to confer with the manager of the Kimball House looking to the occupancy of one of the parlors in the hotel as a meeting place. As the manager was familiar with the convivial habits of a large number of members, we were cheerfully provided comfortable quarters, and again free rent.

In 1898, Dr. W. L. Champion was President, and we remained at the Kimball House through his administration. It was becoming apparent that the Academy was approaching dissolution, but certainly not on account of Champion. We were too poor to pay rent to anyone, but it was decided that removal from the hotel was desirable.

In 1889, the writer was elected President. Doctors Davis and Fischer invited us to be the guests of their offices on the top floor of the Flatiron, now the Georgia Savings Bank Building, Peachtree and Broad Streets.

The First Vice-President was Dr. Katherine Collins, the first and only woman to be honored as an officer in the long history of the Fulton County Medical Society.

We remained the guests of our professional benefactors through the administrations of Dr. J. C. Olmstead, in 1900, and Dr. T. V. Hubbard, in 1901.

Dr. Bernard Wolff was President in 1902, when we moved to the basement of the Carnegie Library. At this period the Academy was beginning to flourish, and we remained at the Library until 1915. In this time the Presidents were: L. P. Stephens, Stirling, Claude Smith, Block, Strickler, Simpson, E. G. Ballenger, Ben Clarke, Paullin and Barnett.

In the meantime the reorganization plan of all county and state societies was put in operation, so that in 1905, the present Fulton County Medical Society came into existence. The Carnegie Library, having urgent need for expansion, reluctantly asked us, in 1915, to vacate our comfortable and convenient quarters. We then returned to the old, but newly remodeled hall in the Chamber of Commerce. In 1922 we moved to these premises, which were purchased in the same year.

The Fulton County Medical Society, throughout its long and honorable career, has always stood for the upbuilding of the profession of medicine in all of its phases, and has steadfastly pursued the lofty principles and ideals of the elevation of medical education, of medical brotherhood and of medical charity.

Presidents of the Atlanta Medical Society 1855—1856—1857—1858—1859—1861, Unknown.

ATLANTA SOCIETY OF MEDICINE

1865	Dr. S. H. Stout
1866	Dr. J. M. Johnson
1867	Dr. J. M. Johnson
1868	Dr. Jesse Boring
1869	Dr. J. G. Westmoreland
1870	Dr. W. F. Westmoreland
1871	Dr. J. P. Logan

ATLANTA MEDICAL AND SURGICAL UNION

1872	Dr. J. P. Logan
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ATLANTA ACADEMY OF MEDICINE

1873	Dr. J. P. Logan
1874	Dr. W. S. Armstrong
1875	Dr. J. M. Johnson
1876	Dr. H. V. M. Miller
1877	Dr. V. H. Taliaferro
1878	Dr. J. F. Alexander

1879	Dr. J. S. Todd
1880	Dr. A. W. Calhoun
1881	Dr. J. A. Gray
1882	Dr. J. B. Baird
1883	Dr. J. D. Wilson
1884	Dr. W. S. Elkin
1885	Dr. J. D. Wilson
1886	Dr. N. O. Harris
1887	Dr. Virgil O. Haddon
1888	Dr. Virgil O. Haddon
1889	Dr. Hunter P. Cooper
1890	Dr. W. P. Nicolson
1891	Dr. F. W. McRae
1892	Dr. W. S. Kendrick
1893	Dr. W. S. Elkin
1894	Dr. J. W. Duncan
1895	Dr. Chas. D. Hurt
1896	Dr. R. R. Kime
1897	Dr. G. H. Noble
1898	Dr. W. L. Champion
1899	Dr. Wm. S. Goldsmith
1900	Dr. J. C. Olmstead
1901	Dr. T. Virgil Hubbard
1902	Dr. Bernard Wolff
1903	Dr. L. P. Stephens
1904	Dr. A. W. Stirling

FULTON COUNTY MEDICAL SOCIETY

1905	Dr. Claude E. Smith
1906	Dr. E. Bates Block
1907	Dr. E. Bates Block
1908	Dr. A. W. Stirling
1909	Dr. C. W. Strickler
1910	Dr. J. R. Simpson
1911	Dr. Edgar G. Ballenger
1912	Dr. M. L. B. Clarke
1913	Dr. J. E. Paullin
1914	Dr. S. T. Barnett
1915	Dr. Stewart R. Roberts
1916	Dr. W. A. Selman
1917	Dr. R. B. Ridley
1918	Dr. H. M. Lokey
1919	Dr. E. C. Thrash
1920	Dr. W. B. Emery
1921	Dr. F. K. Boland
1922	Dr. R. T. Dorsey
1923	Dr. H. R. Donaldson
1924	Dr. W. E. Person
1925	Dr. Theo. Toepel
1926	Dr. J. L. Campbell
1927	Dr. Marion T. Benson
1928	Dr. E. C. Davis
1929	Dr. C. E. Waites
1930	Dr. Jas. N. Brawner
1931	Dr. T. C. Davison

TREATMENT OF PNEUMONIA*

J. B. AVERA, M.D.

Brunswick

The treatment of pneumonia is a time-honored one, in that it has as many, if not more treatments, than any other disease. Each year brings forth a new treatment, in the hope that the profession can in some way reduce the mortality rate, which has changed little throughout the ages. Various treatments, in some years, give great hopes in their efficiency and our profession becomes very elated only to be discouraged the next year by the preceding year's "new find". Our fraternal brothers in the early days of the practice of medicine dreaded this disease and their fears have been transmitted down to us. There is probably no man in this audience who hasn't a fear of this terrible malady.

Until the World War, pneumonia was almost routinely treated the same, with only an occasional outburst of new treatment. This conflict furnished quantities of cases and they were so collected that a very intelligent study of the various forms of pneumonia could be made, with many methods of treatment. I think that every known method was tried at this time, both here and abroad, under the most varied kinds of circumstances.

I firmly believe that the World War brought out the importance of keeping the patient in a heated room. Doctor Haggard, of Nashville, Tennessee, in a paper given to the Southern Medical Association in 1927, clearly proved that the percentage of deaths was less in patients who were kept in well ventilated, but warm rooms. I am of the opinion that exposure causes pneumonia to be contracted, so why continue to allow the same exposure and expect the patient to recover in a medium that helped give him the disease?

Looking back through statistics, pneumonia has justly supplanted John Bunyan's phrase "Captain of the Men of Death", as applied to consumption. We, as physicians, have learned in time and by experience of others, that consumption is controllable if

diagnosed and treated in its early stages. Pneumonia, unlike consumption, has such a short early stage that the greater percentage of cases are not seen until the disease is well progressed and if it were seen earlier we could do very little in preventing its progress. It is true, no doubt, that if pneumonia patients were seen earlier in the disease some patients could be saved and many cases could probably be aborted or the course of time shortened, but this is a problematical question.

Treatment

As soon as the diagnosis of pneumonia is made, I always give an initial laxative, not a severe purge. This, in my opinion, clears the intestinal tract of any fecal material and reduces toxemia. Just as essential as the intestinal care at the first visit, is the treatment for the pain. For this I do not hesitate to give morphine in doses depending upon the amount of pain and the size of the individual. These are two most important steps for if the patient is rolling about with pain and burning up with a high fever, which is partly caused by intestinal absorption and you do not relieve him as soon as possible, you have begun no competition with the disease. After the patient has a laxative and some opiate to relieve his suffering I try to stress the importance, both to the patient and to the family, of regular and constant care. I do not think it advisable to frighten the patient; but if you can tactfully convince him as to the seriousness of his condition and the importance of his co-operation, you will have made your job easier and his chances for recovery greater.

Any patient with pneumonia needs a good, competent nurse, who will carry out your orders, regardless of the family's feelings. This nurse should be told repeatedly the importance of exactness in her duties and especially in reference to the time in which her treatments and medication should be given.

The next step in the treatment is to place the patient in a room that is easily heated and kept at an even temperature. I think that it is unwise to move a pneumonia patient from the home to the hospital, especially after the disease is fully developed or unless surrounding conditions make it necessary. If it is necessary to move the patient, do so as

*Read before the Eleventh District Medical Society, Brunswick, Ga., April 12, 1932.

quickly and quietly as possible, using morphine to relieve the patient of any expected fear or excitement in going to the hospital.

Chest applications are elective. Personally, I think that the patient gets a great deal of comfort from mustard plasters which are properly applied and not allowed to remain on the chest long enough to blister. In this procedure, I have the attendant apply the mustard plaster regularly every four hours.

Food is a most essential factor and I always try to have my patients take a small amount of soft food regularly. No form of milk, except custards, is given. I have found that the majority of my patients will accept plain jello. I like to keep the body fluids high.

On the first visit, before any medication has been started, a specimen of urine should be obtained and a complete urinalysis should be made as soon as possible, so that the presence of diabetes or nephritis may be known. These two conditions, if present, will have a great bearing on the case as to treatment.

As mentioned in the early part of the discussion of the treatment, laxatives are not essential, except in the beginning. After the initial laxative, if the patient will tolerate it without too much distress, a daily enema should be given. If the patient's bowels will move with a small daily dose of magnesia or cascara and he objects to the enema, I think it unwise to resort to the enema except in cases of severe distention.

Antipyretics are to be used with much care in any case of pneumonia and should not be given except in cases where the fever cannot be satisfactorily controlled with an ice-bag to the head.

Body fluids must be maintained at all costs and the patient should be given liquids as freely as he will tolerate them. These liquids should be of an alkaline nature. Most patients, after several days, become greatly dehydrated because of the high temperature and the low fluid intake. This should be overcome by the injection of sub-cutaneous saline solution, containing from 3 to 5 per cent glucose in 500 c.c. quantities. This should be given at least three or four times in twenty-four hours.

If there is no indication of diabetes, half of the sugar should be covered with insulin. This serves the purpose of decreasing the blood sugar level to a normal tolerance and in the half that has been burned with the insulin, the diacetic acid and the toxic substances that are thrown off by the body are reduced. The pneumonia bacilli are likewise burned and easily eliminated by the kidneys before the heart muscles can be affected, for the heart is the one organ that must be conserved if possible.

As this procedure takes place, it is most essential that a daily urinalysis be made to note the kidney response to this treatment. If available, a blood chemistry should be done at intervals to determine the sugar, urea, non-protein-nitrogen and creatinine contents.

Digitalis should be given at the onset of the disease and continuously. This, I think, should be administered hypodermically in dosages depending upon the patient's size and age. I believe that the heart should be under direct control from the first and not wait until it shows signs of failure or irregularity. In certain cases where the blood pressure is high and the patient is fat, veratrum should be given.

In keeping the patient quiet I find that one-twelfth of a grain of morphine, given every four hours, will carry most cases without any sign of distress. A larger dose should be given with care and rather than give a larger amount I resort to a retention enema of sodium bromide and small amounts of chloral hydrate. These enemas can be given when necessary and not at regular intervals.

Serums in the treatment of pneumonia are also in their infancy. I have read with great interest the discussion of this type of treatment in a March number of the *Journal of the American Medical Association*. The use of serum on type two pneumonia is discussed. I think the article and the discussion are worth anyone's while to read.

Distention is one of the most dreaded symptoms of pneumonia and at the first indication enemas should be given. If the patient is very weak with low blood pressure, I give one-half c.c. of surgical pituitrin, alternating every four hours with one seventy-

fifth grain of eserine sulphate hypodermically, in conjunction with the enemas, at the same time increasing the amount and strength of the daily laxatives.

The procedure of giving glucose and covering it partially with insulin was started four years ago and I am very happy to say that in this time I have never lost a pneumonia patient where the treatment was established as much as twenty-four hours after the patient was first seen. I have treated approximately 100 cases of pneumonia with this method and have found it very satisfactory. I only wish I could have had access to a larger number of cases, as I feel certain that the results would have been most pleasing.

Summary

1. Keep the heart under control from the onset of the disease. The use of veratrum is elective. Watch the blood pressure constantly.
2. Laxatives and enemas should be given regularly as the bowels must be moved daily.
3. Food should be given in small amounts regularly for solid food will help to keep distention down.
4. Good nursing is over one-half of the treatment. Always have a competent nurse.
5. Fresh, warm air is very necessary. Have no drafts or cold rooms.
6. The patient must be kept quiet.
7. Chest applications are elective, but should be tried in every case unless the patient objects to their use.
8. Antipyretics and serums are elective.
9. Distention should be guarded against from the beginning. Resort to drastic measures before allowing the patient to become distended.
10. Glucose and insulin should be given at the first sign of any dehydration, toxemia, or high diacetic urine test, this being one of the most important steps in the treatment of pneumonia.
11. Based on the efficiency of glucose and insulin treatment in approximately 100 cases of pneumonia with no fatalities I trust that this short discussion will be worth some consideration to all.

THE ECONOMIC STATUS OF THE MEDICAL PROFESSION

B. T. BEASLEY, M.D.

Atlanta

To the Secretaries of the County Medical Societies:

The following resolution was passed by the Fulton County and Cobb County Medical Societies at their regular meetings a few weeks ago, after the reading of a paper entitled "The Economic Status of the Medical Profession," which appeared later in the Journal of the American Medical Association, October 15, 1932, page 1358, under the Department of Medical Economics.

Since this article appeared, we have had numerous letters from physicians all over the United States urging that this plan be placed before the different county, state and national societies for their consideration and adoption.

We are asking that you place this or a similar resolution before your society and ask for its adoption. Have it signed by your proper officials and forward to the secretary of the Medical Association of Georgia.

These resolutions will be placed in the hands of the delegates to the American Medical Association at its next annual meeting.

RESOLUTION

Whereas, the medical profession of the United States is suffering losses all out of proportion to its ability to endure, and

Whereas, our losses are not so much due to the financial depression as to over production of doctors and decreased demand for paid medical service generally, and

Whereas, the production of doctors is far in excess of the population increase,

Therefore, we the members of the _____ County Medical Society respectfully request the Medical Association of Georgia, the other state medical associations, the Southern Medical Association, and the American Medical Association to adopt this or similar resolutions, requesting the medical colleges of the United States to reduce the number of graduates each year until the law of supply and demand has been fully complied with. The number of graduates shall be determined by a national committee appointed by the President of the American Medical Association.

THE JOURNAL

OF THE
MEDICAL ASSOCIATION OF GEORGIA
Devoted to Welfare of Medical Association of Georgia

139 Forrest Avenue, N.E., Atlanta, Ga.

DECEMBER, 1932

THE SEASON'S GREETINGS

A Merry Christmas and a Happy and Prosperous New Year is our prayer for all members of the Medical Association of Georgia and their families.

PUBLIC HEALTH AND PRIVATE PRACTICE

We use the expression "Public Health and Private Practice" instead of the much too frequently used phrase "Public Health *versus* Private Practice", since there must be full co-operation and no antagonism between the two if the people are to receive the benefits of present medical knowledge in the prevention and cure of disease.

For the most part the two fields are clearly defined, differences of opinion arising only in the practical application of specific public health measures. Because local conditions vary greatly in the different sections of Georgia, it would seem that problems peculiar to each locality should be discussed and wisely settled by the members of the local county medical societies in conference with the representatives of the state department of health and local health officials.

For many years the relationship existing between public health workers and private practitioners in Georgia has been most cordial. This relationship must be maintained.

DIRECTORY

As for a number of years past, this, the December, issue of the Journal contains the directory for the year 1932. The names and addresses are listed under their respective societies. The roster of members and officers are published from reports by the secretaries of county societies. If errors or omissions are noted the Secretary-Treasurer will appreciate a prompt notice to that effect.

CONTRACT PRACTICE

At almost any place where two or more doctors are gathered together the subject of contract practice is sure to be discussed. No subject has agitated the profession so greatly since the World War. Some of the questions asked are: "Is contract practice ethical?" "Who shall decide the question of ethics in any given contract?" "What is the attitude of the local society?" "What is the Association going to do about contract practice?"

Contract practice in some form has existed as long as the profession itself and under some circumstances it is necessary in order to provide medical care for certain groups of the people. Under such circumstances contract practice is ethical. However, unless such practice fills a real need in the community there is no excuse for it. The ethical questions involved in all contracts should be passed upon by the Board of Censors of each county society.

Up to the present time no question of this nature has been officially submitted to the Council of the State Association by a county society.

PROGRAM FOR THE MACON MEETING

*To the Members of the
Medical Association of Georgia:*

Active preparation of the scientific program for the Macon meeting of the Medical Association of Georgia is now in progress. It is the desire of the Committee on Scientific Work which has the program in charge that the Macon meeting will be the most interesting and profitable that the Association has had. In order that this may be accomplished, it will require the active participation of all members.

The purpose of this announcement is to request each member of the Association who desires to appear on the program to send at once the title of his paper and if possible, a brief abstract, to the Chairman. It is hardly possible that all titles submitted can be accepted, however, preference will be given those papers which appear to be of general interest to the members of the Association and to those submitting titles who have not appeared on the program in recent years.

A general meeting of the Committee will be held early in January so that it is necessary to have your title submitted as prompt-

ly as convenient. Your willingness to assist in the preparation of this program will be greatly appreciated by the Committee.

Titles for papers should be forwarded in time to reach the Committee on or before March 15, 1933.

Very respectfully,
Committee on Scientific Work.

WM. R. HOUSTON, M.D.

CHAS. E. WAITS, M.D.

ALLEN H. BUNCE, M.D.

Secretary-Treasurer

JAS. E. PAULLIN, M.D.

*Chairman, Medical Arts
Building, Atlanta.*

THE PINK SLIP

For your convenience we are enclosing in this issue of the Journal a pink slip that we ask you to fill out promptly in payment of 1933 dues and forward to the Secretary of your county society.

CONTRACT PRACTICE

It is unprofessional for a physician to dispose of his services under conditions that make it impossible to render adequate service to his patient, or which interferes with reasonable competition among the physicians of a community. To do this is detrimental to the public, to the individual physician, and lowers the dignity of the profession.

WHEREAS, The doing of contract practice of medicine by some physicians in Cobb County has been, and is now, causing dissension, and dissatisfaction in the Cobb County Medical Society, and among physicians of Cobb County;

AND WHEREAS, such contract practice strikes at the very foundation of sound, fair, and progressive medical practice, in that it prevents fair and reasonable competition, cuts prices below those usually charged and prevents the free choice of physicians; and will result in an inferior type of practice, lowers the dignity and professional standing of the medical profession by creating dissatisfaction among the laity, and giving just cause for the accusation of discrimination; is frowned on and condemned by the highest type of medical men and organized medicine.

THEREFORE, be it resolved by the Cobb County Medical Society, in session, that we condemn contract practice for the employees of any firm, company, business, or corporation, by any physician or surgeon, where a part of the salary or wages are paid, assigned or assessed, directly, or indirectly, voluntarily or involuntarily, as weekly, monthly, or yearly, salary or remuneration to physician or surgeon doing such practice or whether such salary or remuneration is paid by the firm, company, business, or corporation. And, further; that we condemn contract practice for any individual, group, association, or body of individuals, when such salary or remuneration is less than that

customarily charged by physicians and prevents fair competition. We hold the above forms of contract practice unfair and unethical, and any physician engaged in such practice is not eligible for membership in this society. Any member of this society engaged in such contract practice shall be notified by the Secretary of this society to appear before it and show just cause why he should not be expelled.

And be it further resolved, that the adjoining county medical societies and the Medical Association of Georgia be mailed copies of this resolution.

COBB COUNTY MEDICAL SOCIETY.

DAMAGE SUITS OR SUITS FOR ALLEGED MALPRACTICE

*Resolutions Adopted by the Habersham County
Medical Society, November 3, 1932*

WHEREAS, there seems to be an increasing tendency on the part of a few irresponsible persons in many communities to seek opportunity to bring damage suits against even licensed and ethical practitioners of medicine, and,

WHEREAS, these licensed and ethical physicians have always and are now giving of their time and effort, in accordance with the best lights before them, unselfishly, often to their own discomfort and as well as to the inconvenience of their families, and,

WHEREAS, ethical physicians have from the earliest periods of medical history rendered treatment to the whole of humanity, regardless of the prospects of a fair remunerative fee, be it resolved by the Habersham County Medical Society:

FIRST, that it is unfair on the part of certain unscrupulous individuals to demand of our members that which by nature is impossible, and to seek through the courts indemnities in such cases, and,

SECOND, that we pledge ourselves not to accept patients for medical or surgical treatment, who are known to have brought, threatened to bring, or promoted the bringing of suit against any ethical member of our Society, and,

THIRD, that we recommended that the other county medical societies of Georgia take similar action, and,

FOURTH, that each member of our organization pledge himself to report all who bring, threaten to bring, or promote the bringing of suit against himself to the secretary of our organization, who shall report this to all other members of same, and,

FIFTH, that this resolution be spread upon our minutes books, and copies be forwarded as follows: to each member of our organization; to the Medical Association of Georgia; and for publication by each newspaper of our county.

The decrease in the death rate, which has increased the average expectancy of life from 49 years in 1900 to 56 years in 1925, an increase of 18 per cent is due to a large extent to the medical and dental professions and the Public Health Service.—Conference Board of the National Institute of Health, Washington, D. C.

GEORGIA DEPARTMENT OF PUBLIC HEALTH

T. F. ABERCROMBIE, M.D., *Director*

THE COUNTY HEALTH UNIT

To persons engaged in county health work it will seem that there is no need for further discussion on this subject, yet to those of us who have been engaged in the promotion of county health organizations, at this time it appears that too much cannot be said upon the subject. The whole theory and practice of county health service is so logical and so obvious, it seems that during the present emergency every effort should be made to spread among our citizens a true conception of the importance of public health work.

The present tendency to cut public health expenditures is of grave concern to every citizen of the state. This fact is very forcibly brought out in a statement by Dr. Louis I. Dublin, President of the American Public Health Association:

"If followed blindly, the movement of economy in government which is sweeping the United States may wipe out the important gains made in the field of Public Health.

"Reduced state, county, and municipal budgets are carrying curtailed appropriations for public health departments, in view of which it has been one of the marvels of the last two years that unemployment, decreased wages and lowered economic conditions have not affected health conditions and mortality.

"In our statistical studies of this situation we cannot escape the conclusion that it has been due, to a considerable extent, to the efficient way in which health organizations, both public and private, have doubled their efforts to meet the emergency. While economy in government is to be desired, it should not be of the 'penny-wise' variety."

Most of us do not appreciate the influence which our state and county health departments have played in the reduction of illness and in the lowering of our mortality rates from typhoid fever, malaria fever, and diphtheria during the past ten years. A marked reduction has been made in these three preventable diseases in the state rate as well as in the counties which are operating full-time health units.

In the thirty-three counties operating full-time health units the death rate from typhoid fever shows a reduction of 47 per cent less than the death rate in the one hundred twenty-six counties without full-time health units: the death rate from diphtheria in the same group of counties shows a 25 per cent reduction in those counties operating full-time health units. As malaria fever is not a statewide problem, comparison can only be made

in those counties where malaria is prevalent. A study of both the mortality and morbidity reports from counties carrying on an active malaria program shows a more marked reduction in the rates from malaria than either typhoid or diphtheria. The decline in the infant mortality rate shows that progress is being made in saving the lives of thousands of babies each year in our state. A completely successful or adequate infant and maternal program cannot be fully developed or carried on in any county without a county health unit.

The declining prevalence of tuberculosis in our state during the past twelve years demonstrates that with more intensive and persistent efforts to prevent infection, it is not too much to hope that it may be made to practically disappear from our rural sections.

School health service is one of the most interesting, attractive, and successful phases of the work of every county health unit. Educators over our entire state realize the importance of this type of public health work. The saving to the taxpayer not only in the finding of defective children and correction of defects but in the control of epidemic diseases among children has proven that a health unit is essential in every county school system. These are only a few of the activities that are being included in the program of every county health unit in the state.

The county health unit has decreased death rates from preventable diseases, prolonged life, and increased the health of the rural population. Its cost in relation to the cost of general government is not excessive, and its return is far greater than that for any similar expenditure made by our counties. Even in the present unfortunate situation of rural economics, any county can afford at least a minimum health service.

No county at present is so poor that it cannot afford to safeguard the life of its citizens. No county can run the grave risk of wrecking its public health unit which has been built up over many years of hard work. Unless we are very careful, we may through these attempts at false economy let loose forces which will undermine our very capacity for speedy economic recovery.

The cost of one epidemic of smallpox, typhoid fever, or diphtheria would be greater to the average county than the cost of operating a health unit for several years. The health

protection of any county is just as essential as the police protection, fire department, or the building of highways. Once our health protection is lost, we may expect increased sickness and deaths from preventable diseases and this would retard the economic recovery of any county.

The expenditures in the past for public health work have never reached one-half of what each county could spend profitably. There has been no wild development and no tendency to grow too fast. Very few counties have ever spent enough to derive the great benefits that sanitary science and modern medicine have made possible. It is with meager amounts indeed, that genuine achievements in disease control have been accomplished. We are still very far from where we can afford to cut down on public health work.

Public health work cannot be carried on without the expenditure of funds, and even though the benefits ultimately derived from it will amply repay these expenditures, the money must be spent before the benefits can be reaped.

Disease prevention is inexpensive; the salaries of health officers, sanitary engineers, and of nursing personnel are relatively small items, while the cost of sickness and of death are usually large and a crippling burden to any county.

Every county in Georgia should strengthen its health work; those with full-time units must make every effort to offer adequate health protection to every citizen, and those too small or for financial reasons feel unable to operate a unit alone should form health districts including two or more counties, and give to their citizens the same protection against sickness and death that is enjoyed by the more wealthy counties.

COMMUNICATIONS

MEMBERSHIP—41 YEARS

To the Editor:

I guess your records will show that I have been a regular paid member of the Medical Association of Georgia for forty-one years. For many years I served as a member of the State Board of Health. You very graciously permitted me to keep several doctors, who are now dead, as honorary members, which enabled me to keep our local society functioning. Early last summer I was forced to undergo a major operation, which was performed by Dr. C. W. Crane, Augusta. Since that time I have not been able to resume active practice.

Now, are you willing to allow me the honor to enjoy honorary membership until I may be able to resume active work? I always enjoy among the many

attractive features the fraternalism. If you think it will be expedient to do so, put Dr. Thomas C. Nash, Philomath, President, and myself Secretary, and send membership cards to me. I will visit him in a few days and carry his card to him. His father having attended college with me in 1887, he and I have been congenial friends from the day of his father's death.

Thanking you for all kindness in the past, I am,
Fraternally and sincerely,

JOHN A. RHODES, M.D.

Crawfordville, Georgia.

November 15, 1932.

SCIENTIFIC EXHIBIT—A. M. A.

To the Editor:

Enclosed is an application blank for space in the Scientific Exhibit of the American Medical Association at its Annual Session to be held in Milwaukee, June 12th to 16th, 1933.

The exhibit this year will be carried out much as it has been in years past, covering a wide variety of subjects. Most of the sections of the Scientific Assembly have appointed exhibit committees which will promote exhibits dealing with various specialties in medicine. Other exhibits will deal with the basic sciences or general subjects.

The Committee on Scientific Exhibit feels that this offers an unusual opportunity for investigators and visiting physicians to meet and discuss informally the various phases of research work presented. The exhibit is of special advantage to persons reading papers in the section meetings since the exhibit can be used to supplement the paper read.

Applications for the Scientific Exhibit close on February 13th, 1933. Assignments of space will be made about March 10th. In the meantime, this office will be glad to answer questions or receive suggestions.

THOMAS G. HULL, *Director.*

Scientific Exhibit.

American Medical Association.

Chicago, Ill.

November 17, 1932.

WHAT HAVE I DONE?

In an address to the students of the Sorbonne University in Paris, and to all France, on an occasion of a national celebration in honor of his seventieth birthday, Pasteur said:

"Young men have confidence in those powerful and safe methods, of which we do not yet know all the secrets. And, whatever your career may be, do not let yourselves become tainted by a deprecating and barren scepticism; do not let yourselves become discouraged by the sadness of certain hours which pass over nations. Live in the serene peace of laboratories and libraries. Say to yourselves first, What have I done for my instruction? and as you gradually advance, What have I done for my country? until the time comes when you have the immense happiness of thinking that you have contributed in some way to the progress and to the good of humanity. But, whether our efforts are or not favored by life, let us be able to say, when we come near the great goal, I have done what I could."—The National Institute of Health.
Washington, D. C.

WOMAN'S AUXILIARY

OFFICERS

President—Mrs. S. T. R. Revell, Louisville.

President-Elect—Mrs. J. Bonar White, Atlanta.

First Vice-President—Mrs. N. Peterson, Tifton.

Second Vice-President—Mrs. C. Thompson, Millen.

Third Vice-President—Mrs. J. W. Simmons,
Brunswick.

Recording Secretary—Mrs. J. E. Penland, Waycross.

Corresponding Secretary—Mrs. F. B. Rawlings,
Sandersville.

Treasurer—Mrs. Chas. Usher, Savannah.

Parliamentarian—Mrs. Charles Hinton, Macon.

Editor—Mrs. C. W. Roberts, Atlanta.

ORGANIZATION

In the first of this series, I endeavored to inspire a real desire in the wives of the doctors of Georgia to join the Auxiliary by emphasizing the nobility of the medical profession from its beginning up to the present day. You will perhaps recall that I used as the connecting link from ancient to modern medicine,—“one who descended in direct line from Hippocrates and was Master of the Art of Medicine in its purest form, Sir William Osler.”

Although I am aware that he is one of many of the immortals of medicine, the more I study his life and am thrilled by his high ideals, his noble methods, and his worth while activities, the more I am convinced that that noble soul stands first as a source of inspiration for us, for he was deeply interested in every phase of work which is undertaken by the Woman's Auxiliary, therefore, throughout this series, he will be taken for our guiding star.

Upon one occasion, I described him thus:

On this list of the immortals, he is last but the best. He made no single contribution like most of the rest, But was teacher, clinician, writer, lover of men. And his nobility of soul is beyond description of pen.

It is the very fact of the many sides of his nature, together with his love for humanity and nobility of soul that makes him peculiarly fitted to be our inspiration.

There never lived a man who was a firmer believer in organized medicine or one who gave more freely of himself for the advancement of this cause.

In an address to the Canadian Medical Association, he divided his subject, which concerned the growth and development of the profession, into three topics: the organized medicine, the medical school and the medical society. In part he said: “By no means the smallest advantage of our meetings is the promotion of harmony and good fellowship. Medical men, particularly in smaller places, live too much apart and do not see enough of each other. In large cities, we rub each other's angles down, but it is an unfortunate circumstance that in many towns, the friction being on a small surface, hurts and mutual mis-

understandings arise to the destruction of all harmony. As a preventive of such a malady, attendance upon our annual gatherings is absolute, as a cure it is specific. But I need not dwell on this point—he must indeed be a stranger in such meetings as ours who has not felt the glow of sympathy and affection as the hand of a brother worker has been grasped in kindly fellowship.” Doesn't this hit a familiar cord? Do you recall where our Constitution states that one of the purposes of the Auxiliary is “to promote acquaintanceship among doctors' families, that local unity and harmony may be increased”?

Osler was regular in his attendance upon medical meetings and denounced in emphatic terms those members of the profession who took no interest other than pecuniary in their calling and who kept up the societies and associations in such a half hearted way.

I am sorry to say that this, too, hits a familiar cord, for so often the chief, if not the only, interest which the wives of our physicians manifest in their husband's work is the financial returns. This should bring a blush of shame to our cheeks.

Osler was so faithful in his attendance upon the medical meetings that even his honeymoon could not keep him away from the meeting of the British Medical Association at Nottingham which caused Mrs. Osler to express a real need for an Auxiliary when she advised the wives to keep away from the medical meetings, lest they pass their time darning their husbands' socks in a hotel bedroom while he gallivants with his male companions. As things are now, her hours would have been filled with quite as much pleasure as his.

As you perhaps know, the Woman's Auxiliary to the Medical Association of Georgia was organized by Mrs. C. W. Roberts of Atlanta, who was sent to the annual convention of the Association for the purpose of organizing a State Auxiliary. This was May 8, 1924. Mrs. Roberts acted as Temporary Chairman and at that meeting the following officers were elected: President, First Vice-President and Secretary. A committee was

appointed to draw up the Constitution and By-Laws.

The first meeting was held in Atlanta on May 13, 1925, with the President, Mrs. James Brawner, presiding. The Constitution and By-Laws were adopted and to the first three officers named, were added District Managers and a combination of Secretary-Treasurer. They decided to have three committees: Program, Legislation and Public Health and Education.

In 1927, the elective officers were changed to include: President, President-Elect, First, Second and Third Vice-Presidents, a Recording Secretary, a Corresponding Secretary, Treasurer, and Parliamentarian. The Editor is appointed by the President. The Constitution and By-Laws were revised in 1927 and have not been revised since, but there was a committee appointed for this purpose at our last meeting.

The President for the year 1927-28 appointed a Chairman combining the duties of Librarian, Historian, and Year Book. From the Recording Secretary's books, I found where this Chairman "presented the Year Book and Directory" and gave "a report of the Scrap Book". I judge from this record (the only one available) that as it now stands the Historian and Scrap Book Chairman are synonymous. At this same meeting, the May Day Program was endorsed by the Auxiliary as it had been previously endorsed by the Medical Association of Georgia. It was moved and adopted that the District Managers should form the Committee on Organization and that these Managers were to be elected in their respective districts.

In 1928-29, a resolution creating a Health Film Library was adopted and this committee is appointed by the President. There were several other resolutions also adopted at this meeting as follows: Expansion Program of State Board endorsed; Registration fee of one dollar at annual meetings of Auxiliary; Southern dues of \$1.00 per Auxiliary and National dues of 25 cents per capita are to be paid on a basis of previous year's membership of component Auxiliaries; and the President-Elect was made Chairman of Organization.

The following year, the project known as the Educational Loan Fund which had been presented to the Auxiliary by Dr. Dancy during the year 1928-29, was accepted. The Chairman of this committee is elected by the general body for a period of three years. The committee is appointed by the President.

Since 1930, the chairmanships have been as follows: President-Elect-Chairman of Or-

ganization (by resolution passed at the previous meeting); First Vice-President-Chairman of Health Education (the following year, 1931-2, Public Relations were added to this chairmanship); Second Vice-President-Chairman of Hygeia; Third Vice-President-Chairman of Scrap Book (these last three chairmanships were combined with the offices of the three vice-Presidents by the decision of the President).

It was during this year, at the request of the President of the Association, we aligned ourselves with the White House Conference for Child Health and Protection. A resolution was also passed requesting the Medical Association of Georgia to outline a program for Health Education and to use the Auxiliary to present this program to lay organizations. This resolution was sent up to the Association but was not acted upon by them until the following year. It was also during this year, according to the record, that a question that I consider of paramount importance was first mentioned. That was in regard to our fiscal year. The National Auxiliary emphasizes this feature of organization. Although the record seems quite clear, I am of the opinion that many of our members, including myself, are still in doubt about this question. At our meeting in Savannah last May, I gathered the impression that the state fiscal year was from May 1st to April 30th and yet the only resolution that we have in regard to the matter reads: "Resolved; that, whereas the books of the Woman's Auxiliary to the A. M. A. are closed on March 31st that those of the State and County be closed January 31st, instead of March 3rd, so that there will be sufficient time to meet state obligations before March 31st." This motion was adopted. I have consulted the Parliamentarian on this question and am awaiting her decision and our actions will be governed accordingly. You will be notified of the exact date that the state books will be closed for this year. I feel sure that this question will be definitely and permanently settled at our next annual meeting.

However, please bear in mind that whether the books close on January 31st or April 30th, that that only means that the designated date is the last date in which dues from the County Auxiliaries will be received and it does not mean that the Auxiliaries have to wait to send their dues until that date. In fact, your President requests that just as soon as the dues of all your members are paid, that your County Treasurer immediately forward the 75 cents per member to your State Treasurer. It will only be by the co-operation of the County Auxiliaries in this way,

can we hope to finance the enlarged program undertaken by the Auxiliary this year.

Last year several important decisions were made affecting our organization. The resolution that we sent up to the Medical Association of Georgia in regard to Health Education was adopted by them and a resolution that the Auxiliary should make a report of this work to the House of Delegates was made and passed by the Association.

This brings us up to the present year. The State Auxiliary is operating under these plans which have been gradually developed in the last eight years. We have ten officers besides three chairmen of standing committees. In addition to these, two committees were appointed for only this year; one to revise Constitution and By-Laws and the other to study such bills as the Medical Association of Georgia wishes to sponsor.

Since May, your President, President-Elect, and First Vice-President have met with the Advisory Council and the President of the Association and the officers of the Department of Public Health and a program for health work has been arranged; the details of which you will be told in the third of this series of talks.

A definite outline of "Our Tasks" for 1932-33 has been sent to every county president with the request that each county appoint chairmen corresponding to State and National chairmen and that each district and county auxiliary which has not done so adopt a Constitution and By-Laws.

Your President urges that you will follow this outline to the best of your ability and she sincerely trusts that the same loving spirit of co-operation and harmony that has been so marked in the past will continue in the future. She wishes that she had the same quality leadership that Osler had, for it has been said of him that: "His very presence brought encouragement, optimism, and hope to all. The charm of his personality brought men together and as friends of Osler, all men met in peace." She also wishes that we all might acquire the one habit to which Osler attributes any measure of success that was his, the "doing of the day's work as faithfully and honestly and energetically as was in his power." If we can only acquire this one habit of his, your President feels that much will be accomplished during the year and that the Auxiliary will have the happiness that comes from the consciousness that we have contributed to the progress and welfare of humanity.

MRS. S. T. R. REVELL

FLOYD COUNTY ORGANIZED

The Woman's Auxiliary to the Floyd County Medical Society was organized on November 15th at the home of Mrs. J. C. Watts, Rome. The following officers were elected:

President—Mrs. Arthur H. Dellinger, Rome.

President-Elect—Mrs. Mather M. McCord, Rome.

1st Vice-President—Mrs. J. Harry Mull, Rome.

Secretary—Mrs. J. C. Watts, Rome.

Treasurer—Mrs. August F. Routledge, Rome.

Constitution and By-Laws were adopted. The regular meetings of the Auxiliary will be held on the second Wednesday of each month.

The President will appoint members of all standing committees at an early date.

Refreshments were served.

NEWS ITEMS

The Georgia Medical Society, Savannah, held its regular meeting on November 8th. Dr. Shelton P. Sanford, Savannah, read a paper entitled "Aortitis"; Dr. J. C. Metts, Savannah, led the discussion. Dr. T. P. Waring, Savannah, "Primary Carcinoma of the Fallopian Tube—Case Report". Dr. J. O. Baker, Savannah, "Fracture of the Cervical Vertebra With Cord Compression—Case Report".

The regular staff meeting of the Crawford W. Long Memorial Hospital, Atlanta, was held on November 10th. A joint paper by Dr. W. F. Lake and Dr. Calvin Weaver, entitled "The Value of X-ray in Diagnosing Brain Lesions" was read. Dr. A. J. Ayers gave a case report, "Bacterial Endocarditis".

Dr. Webb Conn, Brunswick, has been elected County Commissioner of Health for Glynn county.

The Medical Board of Grady Hospital, Emory Unit, Atlanta, met at the hospital on November 8th. Dr. D. B. Kendrick gave a case report, "Acute Dilatation of the Stomach"; Dr. Inman Smith, case report, "Subarachnoid Hemorrhage"; Dr. R. A. Bartholomew read a paper, "Etiology and Management of Toxemias of Pregnancy". Dinner was served.

The Clinical Society of the Piedmont Hospital, Atlanta, met in the dining hall of the hospital on November 14th. Dr. Jesse York gave a case report entitled "Abdominal Tumor". Others discussed deaths occurring during the month of October.

The Walker County Medical Society, at a recent meeting, elected to honorary membership: Dr. J. H. Hammond, LaFayette; Dr. J. P. Wood, Flintstone; and Dr. M. M. Crowder, Kensington. Dr. Hammond is now more than 76 years of age. He graduated from the Jefferson Medical College in 1883 and joined the Medical Association of Georgia in 1884 and has been an active member continuously to date. Dr. Hammond served as Secretary-Treasurer of the Walker County Medical Society from its date of organization until

January 1, 1932. He has held important offices in the Medical Association of Georgia and the Seventh District Medical Society.

The Terrell County Medical Society met in the office of Dr. Steve P. Kenyon, Dawson, on October 28th. Dr. R. C. Pendergrass and Dr. E. B. Anderson, both of Americus, read papers. Dr. Guy Chappell and Dr. Steve P. Kenyon, both of Dawson, gave case reports.

The physicians of Lincoln county entertained the members of the Richmond and Wilkes County Medical Societies at a banquet in Lincolnton on November 3rd. After the banquet the doctors were the guests of local hunters on a fox chase.

The South Georgia health officers regional conference was held at Albany on November 9th.

"Georgia's Health" states that there are less than one per cent of the state's expenditures appropriated for health and sanitation.

The Third District Medical Association met at Columbus on November 9th. Titles of scientific papers on the program were as follows: "Intestinal Drainage", Dr. Wm. L. Cooke, Columbus; Dr. J. C. Patterson, Cuthbert, and Dr. F. M. Mullino, Montezuma, led the discussion. "Treatment of Severe Chest Injuries", Dr. Dan C. Elkin, Atlanta; Dr. Warren A. Coleman, Eastman, and Dr. R. C. Pendergrass, Americus, led the discussion. "Transurethral Relief of Prostatic Obstruction—Illustrated with Moving Pictures", Dr. Major F. Fowler and Dr. S. J. Sinkoe, both of Atlanta; Dr. E. B. Anderson, Americus, and Dr. Willis P. Jordan, Columbus, led the discussion. "X-Ray Study in Pregnancy", Dr. H. J. Bickerstaff and Dr. Wm. F. Jenkins, both of Columbus. The members and their wives were entertained at dinner by the Muscogee County Medical Society and the Woman's Auxiliary at the Country Club. Dr. Frank P. Norman, Columbus, was toastmaster.

The Fulton County Medical Society met at the Academy of Medicine, Atlanta, on November 17th. Dr. Walter W. Daniel, Atlanta, gave a case report, "Secondary Appendiceal Abscess"; Dr. W. E. Person, Atlanta, gave a clinical talk on "Treatment of Rectal Fistula"; Dr. Vernon E. Powell, Atlanta, read a paper entitled "Chronic Nephritis". Drs. T. L. Byrd, Carter Smith and C. W. Strickler, all of Atlanta, led the discussions.

The American Medical Association announces that the time for making applications for scientific exhibit space will close on February 13th and that assignments will be made about March 10th for the Milwaukee meeting which will be held June 12-13-14-15-16, 1933. Those who anticipate making scientific exhibits should write to the A. M. A. for application blanks.

Dr. John A. Rhodes, Crawfordville, states that he has been an active member of the Medical Association of Georgia for forty-one years. During the time he has been a member of the State Board of Medical Examiners for a number of years. Dr. Rhodes continues his activity by reporting for 1933 the members of Taliaferro County Medical Society.

Will some one write the office of the Association giving the name of the member who has the longest record of continuous membership in the Medical Association of Georgia?

The Georgia Department of Public Health announces that the following members will write for its department for the respective months during 1933 as follows: January—Dr. T. F. Abercrombie; February—Mr. Butler Toombs; March—Dr. M. E. Winchester; April—Dr. D. L. Seckinger; May—Dr. T. F. Sellers; June—Mr. M. L. Clarkson, Sanitary Engineering; July—Dr. J. P. Bowdoin, V. D.; August—Mr. Butler Toombs, V. S.; September—Dr. T. F. Sellers, Laboratory; October—Dr. J. P. Bowdoin, C. D.; November—Mr. M. L. Clarkson, Sanitary Engineering; December—Dr. M. E. Winchester, County Health Work.

The New York Polyclinic Medical School and Hospital, New York City, announces the formal opening of the Chinese Lounge on November 10th atop the main building of the institution. The Honorable John P. O'Brien, Mayor-elect of the city of New York, and Hon. Henry K. Chang, Chinese Consul-General, officiated. The Chinese Lounge was opened for convalescent patients. The opening was attended by a large gathering. Refreshments were served.

The American College of Surgeons, 40 East Erie Street, Chicago, will hold its 1933 annual Clinical Congress in Chicago, October 9-13, 1933. The Stevens Hotel will be headquarters.

Dr. Frank K. Boland, Atlanta, was elected Chairman of the Board of Stewards for the Trinity Methodist Church at a recent meeting.

The Georgia Medical Society, Savannah, held its regular meeting on November 22nd. Dr. Robert Drane, Savannah, read a paper entitled "Phytobezoar—Case Report"; discussed by Dr. Julian K. Quattlebaum, Savannah. Dr. E. Carson Demmond, Savannah, gave case report "Banti's Disease".

Dr. H. C. McDermid, formerly of Okeechobee, Fla., has removed to Vidalia and opened offices for the practice of medicine.

Dr. J. K. Burns, Gainesville, was elected President of the Gainesville Kiwanis Club at a recent meeting.

The Jackson County Medical Society met at the

Harrison Hotel, Jefferson, on November 7th. Dr. Laetus Sanders, Commerce, read a paper entitled "Fever and Methods of Reducing Same".

The members of the Jefferson County Medical Society and the Woman's Auxiliary were entertained at dinner by Dr. and Mrs. John R. Lewis, Louisville, on November 4th.

The Staff meeting of St. Joseph's Infirmary, Atlanta, was held on November 22nd. Dinner was served in the dining hall.

The Spalding County Medical Society met at the Strickland and Son Memorial Hospital, Griffin, on November 15th.

Dr. and Mrs. M. F. Haygood, Alto, entertained the members of the Habersham County Medical Society and the Auxiliary at their home on November 10th.

The Southern Medical Association held its twenty-sixth annual meeting at Birmingham, Ala., November 16-17-18. The following officers were elected for the ensuing year: Dr. Irvin Abell, Louisville, Ky., President; Dr. James R. Garber, Birmingham, Ala., First Vice-President; Dr. Hugh J. Morgan, Nashville, Tenn., Second Vice-President; Mr. C. P. Loranz, Birmingham, re-elected Secretary-Manager. The Association will hold its next annual meeting in Richmond, Virginia.

The Randolph County Medical Society met at Cuthbert on December 1st. Address by Dr. T. F. Harper, Coleman, the retiring president. Case reports were given by members. Officers were elected for the ensuing year.

Dr. Horace Darden, Sparta, attended the meeting of the Tenth District Medical Society at Louisville on November 17th. It is claimed that he is the dean of the profession in the Tenth District, having been in active practice for more than fifty years. He is yet an active member of the Hancock County Medical Society and the Medical Association of Georgia.

Dr. Everett L. Bishop announces the opening of his laboratory at 1105 Medical Arts Building, Atlanta. Work will be limited to pathology, especially the diagnosis of neoplastic disease. Operating room diagnosis and frozen section diagnosis.

The John D. Archbold Memorial Hospital, Thomasville, entertained its staff with a Thanksgiving dinner at the hospital on November 17th.

The Second District Nurses' Association met at the John D. Archbold Memorial Hospital, Thomasville, on November 25th. The business session was followed by an address by Mrs. W. W. Jarrell, Thomasville, entitled "Insurance in Faith, Good Works and Ser-

vice". The Harmon Association for the Advancement of Nurses was discussed. Refreshments were served.

Many members of the Association originate some most excellent *wise* thoughts. The Editor of THE JOURNAL can use them in the news columns and as fillers, if forwarded to this office in the form of "motto" sentences. The thought harbored in your mind, if released to others, might be the creator of some important move or work by others or bring into action some inert ability which lies dormant in a fertile brain.

The applicants licensed to practice medicine in Georgia as a result of the State Board examinations given on October 11-12 are as follows: Berger, Lewis, Atlanta; Bivings, W. Troy, Jr., Atlanta; Dinsmore, Virgil F., Tifton; Dumas, Albert W., Jr., Natchez, Miss.; Ferdinand, Jas. W. D., Washington, D. C.; Harper, Alva B., Atlanta; Hill, Clarence T., Madison, N. J.; Hurt, Albert D., Atlanta; Jennett, Geo. H., Jr., Natchez, Miss.; Merrick, Walter E., Washington, D. C.; Russell, Warren M., Washington, D. C.

The Walker County Medical Society met at Lafayette on November 25th. Officers were elected for 1933.

The Clarke County Medical Society, Athens, sponsored clinics and demonstrations for members of the society and physicians of adjoining counties on November 21-22. Dr. Max Cutler, Michael Reese Hospital, Chicago, was in charge of the work. On November 21st a general diagnostic clinic was given followed in the afternoon by a radical breast amputation with a radio knife. On the morning of November 22nd a diagnostic clinic, devoted principally to tumors of the breast and showed a motion picture depicting the mining and processing of radium. This was followed in the afternoon by an operative clinic. Dr. Cutler, who is a native of Athens, was entertained at noon on the 21st at a barbecue and on the evening of the 22nd at a banquet.

The Georgia Warm Springs Foundation, Warm Springs, announces that four motion pictures are available which show: I. "Short Story of Warm Springs—Just a synopsis of life at Warm Springs, shots of treatment, pools, Meriwether Inn, etc." II. "The Story of Warm Springs—Visualizing the layout of the Foundation and the different activities which are possible for the patients, friends, relatives and visitors, with especial emphasis on the hydro-gymnastics at the Patients' Pool." III. "Physiotherapy at Warm Springs—This film edited to doctors and physiotherapists, deals with the specialized methods used at Warm Springs." IV. "Corrective Walking—This is a description of the different methods of teaching corrective walking to handicapped people, showing the different types of limps which can be made less conspicuous by the use of crutches or canes."

The Tenth District Medical Society met at Louisville, November 17th. Dr. Geo. L. Echols, Milledgeville, read a paper entitled "Psychiatric Training for Nurses"; Dr. H. T. Kennedy, Warrenton, "Surgery and Public Health"; Dr. Geo. A. Traylor, Augusta, "Cancer of the Rectum"; Dr. C. M. Burpee, Augusta, "Causes for Loss of Appetite in Children." Officers elected for the ensuing year were: Dr. S. T. R. Revell, Louisville, President; Dr. N. J. Newsom, Sandersville, Vice-President; Dr. J. J. Pilcher, Wrens, Secretary-Treasurer. The next meeting will be held at Augusta in February.

The Post Graduate Medical Assembly of South Texas held its first meeting at Houston, Texas, November 28-29-30, and December 1st, inclusive. More than five hundred members were in attendance. Among those on the program were: Doctors Walter C. Alvarez, Rochester, Minn.; Horton R. Casparis, Nashville, Tenn.; George W. Crile, Cleveland, Ohio; Robert B. Osgood, Boston, Mass.; John R. Caulk, St. Louis, Mo.; Edward H. Cary, Dallas, Texas, President of the American Medical Association; Morris Fishbein, Chicago, Ill., Editor of the Journal of the American Medical Association; and Frank K. Boland, Atlanta, representative of Emory University School of Medicine. Dr. Boland spoke on "The Surgical Treatment of Pulmonary Tuberculosis", "Differential Diagnosis of Tumors of the Abdomen", and "Injuries of the Chest".

The Grady Hospital, Atlanta, Staff Meeting was held in the Senior Lecture Room of the Colored Unit on December 6th. The following case reports were given: "Secondary Anemia" by Dr. C. W. Strickler, Atlanta; "Traumatic Chest", Dr. T. C. Davison, Atlanta; "Pathological Report", Dr. Jack C. Norris, Atlanta.

The Crawford W. Long Memorial Hospital, Atlanta, Staff meeting was held on December 8th. Dr. Allen H. Bunce, Atlanta, read a paper entitled "Treatment of Diabetes Mellitus"; Dr. W. F. Lake and Dr. J. Calvin Weaver, Atlanta, "The Value of X-Ray Diagnosis in Brain Lesions"; Dr. A. J. Ayers, Atlanta, "Bacterial Endocarditis—Case Report." Dinner was served in the dining room.

Medical Staff of the Atlanta Tuberculosis Association met in the Community Room, 282 Forrest Avenue, N.E., Atlanta, on December 8th. Dr. C. C. Aven, Atlanta, read a paper entitled "Indications and Contra-indications in Pneumothorax".

The Fulton County Pediatric Society announces the election of the following officers for the ensuing year: Dr. Roger W. Dickson, Atlanta, President; Dr. T. I. Willingham, Atlanta, Secretary.

The Clinical Society of the Piedmont Hospital, Atlanta, met on December 12th. Subjects of case reports were as follows: "Gout, Cirrhosis of Liver, Arterio-

sclerosis, Uremia", by Dr. Jas. E. Paullin and Dr. R. H. Wood, Atlanta; "Aleukemic Leukemia", Dr. H. C. Sauls and Dr. Carter Smith, Atlanta.

Dr. Kenneth McCullough, formerly Chief of Staff of the Atlantic Coast Line Railroad Hospital, announces the opening of offices at 224-226 Bunn Building, Waycross. Practice limited to general surgery.

Dr. Guy A. Caldwell announces the association of Dr. Stanley A. Hill in the practice of orthopedic surgery and the removal of his offices to 304-310 Medical Arts Building, Atlanta.

The Jackson County Medical Society met at the Harrison Hotel, Jefferson, on December 12th. Dr. L. C. Allen, Hoschton, read a paper entitled, "Uterine Hemorrhage". The next meeting of the society will be held at Allen's Hospital, Hoschton, on the second Monday in January. Dr. and Mrs. M. B. Allen, Hoschton, will entertain the members of the society and the Auxiliary at dinner in their home on the same date.

Dr. A. D. Williams, formerly of Folkston, has moved to Waycross and opened offices for the practice of pediatrics and obstetrics.

OBITUARY

Dr. John Guilford Earnest, Atlanta; member; Jefferson Medical College, Philadelphia, Penn., 1867; aged 90; died at his home, 843 Juniper Street, N.E., on October 8, 1932 after a long illness. He was born in Greene county, Tenn., and received his literary education at Rutherford Academy, Kingsport, Tenn. Dr. Earnest served as First Lieutenant in the Confederate Army during the Civil war and was the last survivor of his regiment. He served on the staff of Grady Hospital, Atlanta, for more than twenty years and thereafter for many years was consulting gynecologist. He was Professor of Gynecology at the Southern Medical College, later the Atlanta College of Physicians and Surgeons, then Professor of Clinical Gynecology at Emory University School of Medicine. Dr. Earnest was a member of the Southern Surgical Society, a Fellow of the American College of Physicians and Surgeons, the American Medical Association, Shrine; Past Master of Georgia Lodge No. 96, F. & A. M.; and a member of the Presbyterian church. Surviving him are his widow, three daughters, Mrs. Chas. S. Northern, Mrs. Josephine E. Purse, and Mrs. Stacy Earnest Hill, all of Atlanta. Funeral services were conducted by Dr. J. Sprole Lyons from the First Presbyterian church. Interment was in West View Cemetery.

Dr. E. Bates Block, Atlanta; member; University of Virginia Department of Medicine, Charlottesville, Virginia, 1895; aged 68; died at his residence, 1372 Peachtree Street, N.E., October 25, 1932. After graduating in medicine from the University of Virginia, he studied at Johns Hopkins University School of Medicine, Baltimore, then spent three years in post-

graduate work at Friedrich-Wilhelms University, Berlin. Dr. Block was Professor of Bacteriology at the University of Minnesota Medical School, Minneapolis, for two years after he returned to the United States. Later he returned to Atlanta and began the private practice of medicine. Dr. Block was one of the founders of the Piedmont Sanitarium, now the Piedmont Hospital, Atlanta. He was a member of the visiting staff of Grady Hospital and devoted a great deal of time and work to charity patients. Dr. Block wrote many articles for the leading medical journals of the United States and was at one time Professor at the Atlanta College of Physicians and Surgeons. Surviving him are his widow, one daughter, Miss Julia Lowry Block; one son, Edward B. Block, Jr. Funeral services were conducted from the residence by Rev. J. Sprole Lyons, Pastor of the First Presbyterian church. Interment was in West View Cemetery.

Dr. Edwin R. Anthony, Sr.; Griffin; member; University of Louisville School of Medicine, Louisville, Kentucky, 1875, aged 80; died at his home on October 19, 1932. He was born and reared at Greenville, Georgia, and moved to Griffin about fifty years ago. He was County Commissioner of Health for Spalding county for forty years and for a number of years a member of the Georgia State Board of Medical Examiners. Dr. Anthony had hundreds of friends and took an active interest in the welfare of his community. He was an eminent physician and one of the State's most able and loyal citizens. Surviving him are two sons, Dr. J. R. Anthony, Griffin, and Dr. E. R. Anthony, Jr., one daughter, Mrs. W. G. Cartledge, Griffin. Funeral services were conducted by Dr. J. B. Turner and Dr. Paul Watson from the residence of his daughter, Mrs. Cartledge. Interment was in the Griffin cemetery.

Dr. George H. Noble, Atlanta; member; Emory University School of Medicine, 1881; aged 72; died at a private sanitarium on October 29, 1932. For more than forty years he was in charge of Dr. Noble's Private Infirmary. His long and distinguished career in the practice of medicine won for him an excellent reputation. Dr. Noble took a number of postgraduate courses in New York City and began early in life to limit his practice to gynecology. Many hospitals throughout the country adopted his methods of practice in gynecology. He devoted much time to the cause of education and was trustee of the University of the South at Suwanee, Tenn. Dr. Noble was Professor Emeritus of Clinical Gynecology at Emory University School of Medicine, member of the Fulton County Medical Society and St. Phillip's Cathedral Church; President of the Medical Association of Georgia 1896-7. Surviving him are one son, Dr. Geo. H. Noble, Jr.; two daughters, Mrs. B. H. Wagnon, and Mrs. Victor A. Moore, all of Atlanta. Funeral services were conducted by Bishop H. J. Mikell from St. Phillip's Cathedral and interment in West View Cemetery.

Dr. William Morgan Folks, Waycross; member; Atlanta College of Physicians and Surgeons, 1911; aged 43; died at a private hospital on October 30, 1932, after an illness of several weeks' duration. He was born and reared in Ware county. Dr. Folks was Commissioner of Health for Ware county for seventeen years and at the time of his death was chief surgeon for the Ware County Hospital. He was prominent in civic, political and religious affairs. Dr. Folks was a member of the Ware County Medical Society, American College of Surgeons, Masonic lodge, Shrine, and the First Methodist Church. Surviving him are his widow, two sisters, Mrs. P. K. Greff, Akron, Ohio; Mrs. Louise Folks, Waycross; two brothers, Fleming and Robert Folks, Waycross. Interment was in Lott cemetery.

Dr. Asbury Hull, Augusta; member; University of Georgia Medical Department, Augusta, Ga., 1907; aged 49; died in his automobile while it was burned on the highway between Augusta and Aiken, S. C. He was driving to Aiken to visit a patient when flames enveloped his car. Dr. Hull was a prominent physician and served as Professor of Surgery in the University of Georgia Medical Department for a number of years. Charity was one of his characteristic traits in social and professional life. He was a member of the Masonic lodge, Richmond County Medical Society, Southern Medical Association, and St. Paul's Episcopal church. Surviving him are his widow, two daughters, Miss Katherine Hull and Miss Mary Hull. Funeral services were conducted by Rev. John Wright from St. Paul's Episcopal church. Interment was in Magnolia cemetery. Members of the Richmond County Medical Society formed an honorary escort.

Dr. Joseph P. Woodward, Buford; Georgia College Eclectic Medicine and Surgery, Atlanta, 1895; aged 56; died at his home on October 23, 1932. He was held in high esteem by a large circle of friends and enjoyed an extensive practice in Buford and surrounding community. Dr. Woodward was a member of the Presbyterian church. Surviving him are his widow, four sisters: Mrs. Era Pattillo, DeLand, Fla.; Mrs. Grace Baxter, Suwanee; Mrs. Delphia Mayfield, Atlanta; and Mrs. G. W. Pharr, Lawrenceville. Funeral services were conducted by Rev. J. D. Carter from the Buford Presbyterian church. Interment was in Rock Springs cemetery.

Dr. Beauregard Williams, Pelham; member; Southern Medical College, Atlanta, 1891; aged 71; died suddenly of heart disease at his home on October 26, 1932. He had practiced medicine in Mitchell and adjoining counties for forty years. Dr. Williams took an active interest in all civic and religious affairs and was always alert and working for the best interest of his community. He held an excellent reputation as a pediatrician. Dr. Williams was a member of the Hand Memorial church. Surviving him are his widow; two sons, Alfred and Edward, both of LaGrange; three

daughters, Misses Helen and Elizabeth Williams, of Pelham; and Miss Lilla Mae, Dunnellon, Fla. Funeral services were conducted by Rev. John S. Sharp from the Hand Memorial church and interment was in the Pelham cemetery.

Dr. Allen Fort Caldwell, Atlanta; member; Emory University School of Medicine, Emory University, 1915; aged 41; died suddenly at his office, 812 Grant Building, on November 10, 1932. He limited his practice to urology and gained an excellent reputation. Dr. Caldwell was prominent in professional and religious circles. He possessed wonderful ability to acquire and retain friends. Dr. Caldwell had been Secretary of the Georgia Urological Association since its organization. He was a member of the Fulton County Medical Society, Fifth District Medical Society, Atlanta Urological Society, Georgia Urological Association, Palestine Lodge, F. & A. M., Mount Zion Chapter, R. A. M., and St. Luke's Episcopal church. Surviving him are his widow, one daughter, Miss Margaret Caldwell; one son, Allen F. Caldwell, Jr. Funeral services were conducted by Dr. John M. Walker from the chapel of Brandon, Bond & Condon. Interment was in West View cemetery. Members of the Atlanta Urological Society, Fulton County Medical Society and the Woman's Auxiliary to the Fulton County Medical Society were honorary escorts.

Dr. Redding Hamilton Pate, Unadilla; member; University of Maryland School of Medicine and College of Physicians and Surgeons, Baltimore, Md., 1898; aged 60; died at the home of his daughter, Mrs. J. E. Grouse, Macon, on November 25, 1932. He was born and reared in Dooly county and resided there practically all his life. Dr. Pate took postgraduate work at Johns Hopkins University School of Medicine at Baltimore. He was a prominent citizen and took an active interest in civic and political affairs. Dr. Pate had practiced medicine in Dooly and adjacent counties for more than thirty years, was at one time Chairman of the Dooly County Board of Education, and was at the time of his death Mayor of Unadilla and State Senator-Elect from the Fourteenth Senatorial District. Surviving him are his widow, three daughters, Miss Lyde Pate, Millen; Miss Zeph Pate, Dalton; and Mrs. J. E. Grouse, Macon. Funeral services were conducted from the First Baptist church at Unadilla by Rev. J. L. Helms. Interment was in the city cemetery.

Dr. John M. Poer, West Point; member; Emory University School of Medicine, Emory University, 1898; aged 64; died at his home on November 15, 1932. For many years he was surgeon for the Atlanta and West Point Railroad and stood high in his profession and private practice. He was a prominent citizen and interested in the upbuilding of his community. Dr. Poer was a former President of the West Point Board of Education and Chamber of Commerce, member of the Rotary Club, Knights of

Pythias, Masons, Shrine, Troup County Medical Society, Medical Association of the State of Alabama, and the First Methodist church. Surviving him are his widow, one daughter, Mrs. J. B. Smith, Atlanta; one son, J. B. Poer, Live Oak, Fla. Funeral services were conducted from the First Methodist church by Rev. John Yarbrough, Rev. W. M. Barnett and Rev. Henry Andrews. An honorary escort consisted of members of the dental and medical profession, and stewards of the Methodist church.

Dr. Roy James Chappell, Dudley; member; University of Georgia Medical Department, Augusta, 1890; aged 66; died at his home on November 22, 1932. He was born and reared in Laurens county and practiced medicine at Dudley for thirty-eight years. Dr. Chappell was a prominent citizen and practitioner. He took an active interest in civic and religious work. Dr. Chappell was a member of the Masonic lodge and the Dudley Baptist church. Surviving him are his widow, two sons, Worthen T. and Joseph J. Chappell, both of Dudley; one daughter, Mrs. Paul J. Jones, Dublin. Funeral services were conducted from the Dudley Baptist church by Rev. C. E. Vines and Rev. J. E. Townsend. Members of the Laurens County Medical Society formed an honorary escort.

RESOLUTIONS ON THE DEATH OF DR. JOHN GUILFORD EARNEST

Dr. John Guilford Earnest has gone on to his reward. Very few of the younger members of the Society knew what a lovable character Dr. Earnest was, what a thorough gentleman in every sense the word can imply. He was a man above reproach in every way, a man of unflinching courage, at the same time with a gentleness of spirit that could not be surpassed by that of a woman.

Those of us who knew him at the height of his success as a gynecologist and obstetrician, knew one of the princes of the profession and one who was highly successful in his chosen calling, and we especially mourn his passing as that of a beloved friend and counselor.

Dr. Earnest was born May 16, 1840, in Rheatown, Tenn., the son of Nicholas Washington Earnest and Caroline Cannon. His father was a merchant in that village. Dr. Earnest attended Emory and Henry College, and was a member of the class of '61, and would have received his degree in June of that year, but he joined the Sixtieth Tennessee Regiment of the Confederate Army. Emory and Henry College, in 1929, conferred upon him the degree that he did not receive in '61. He was a lieutenant in the above named regiment, and was captured at Vicksburg and paroled. He was later exchanged, and then joined a mounted infantry of Tennessee troops and served the balance of the war in Virginia. After the end of the war he went to Jefferson Medical College in Philadelphia, from which institution he was graduated in 1867. He then practiced medicine for a few months in Newcastle, Va., and then went to Jefferson City, Tenn.,

for a short while, and then to Morristown, Tenn. He moved in the early seventies to Newnan, Ga., where he practiced with marked success until 1881, when he moved to Atlanta. Soon after coming to Atlanta he became Professor of Clinical Gynecology in the Southern Medical College. He was a member of that College, also of the Consolidated College in 1898 known as the Atlanta College of Physicians and Surgeons, and in 1913 following another merger, the Atlanta Medical College, and in 1915 the Medical Department of Emory University, where he was made Emeritus Professor, which he held until the time of his death. It was said that Dr. Earnest was the first physician in Atlanta who ever had a telephone. He was one of the original members of the Atlanta Academy of Medicine, which was later known as the Atlanta Society of Medicine, and which, in 1905, changed its name to the Fulton County Medical Society. He was a member of the Southern Surgical Society, of the American Medical Association, of the Medical Association of Georgia, and an honorary fellow of the Southeastern Surgical Congress. For twenty years he was gynecologist at Grady Hospital, for sometime gynecologist at St. Joseph's Infirmary, and at the Presbyterian Hospital. He was a member of Lodge No. 96 of the Masons. He had formerly been a Grand Master of another lodge in Newnan. He was a Shriner, a 32 degree Mason. In 1917 the physicians of Atlanta gave him one of the most remarkable dinners in honor of his fifty years in active practice. He was an elder in the First Presbyterian Church for a great many years, practically since coming to Atlanta. In the last years of his life he suffered a partial paralysis, which incapacitated him and withdrew him from contact with his fellow physicians, but all of us who knew him retained, and still retain, the love and affection and admiration for his wonderful qualities as a man and physician.

He was married on October 13, 1868, to Martha Moffett, of New Market, Tennessee, and they had four daughters and one son.

Whereas, the Fulton County Medical Society has lost a faithful and devoted member and

Whereas, the individual members who knew, loved and admired him are deeply affected by his passing, therefore

BE IT RESOLVED: That we have spread upon our minutes the above brief sketch of his life and that we extend to his wife and daughters our deep and heartfelt sympathy in the loss they have sustained. Also, that a copy of these resolutions be sent to his family, that they be published in the *Society Bulletin*, and in the *JOURNAL OF THE MEDICAL ASSOCIATION OF GEORGIA*.

Read and adopted by the Fulton County Medical Society, Atlanta, November 3, 1932.

WM. PERRIN NICOLSON, JR., M.D.

W. S. ELKIN, M.D.

S. T. BARNETT, M.D., Chairman.

Committee of the Fulton County Medical Society.

DR. WILLIAM MORGAN FOLKS

On the morning of October thirtieth, Nineteen Hundred Thirty-Two, our co-worker, Doctor William Morgan Folks, was called to his reward.

Though young in years, Doctor Folks was wise in the delicate and technical secrets of the science of medicine. His skill as a surgeon gave him rank and recognition through membership and fellowship in the leading medical and surgical organizations of this country. He gave largely of his experience and time to the poor. Those in distress always found him a sympathetic friend, as well as a skillful physician. He carried warmth, sunshine and a smile into the sick room, and in administering to the physical ills of those who were sick, he also gave cheer and hope to loved ones in their mental anxiety.

Doctor Folks fitted well into a lineage of physicians over a period of three generations of his family. His life, his skill and prominence were a fitting climax to this unbroken chain of physicians bearing his name.

Doctor Folks was a citizen of the highest type, giving of time and effort to civic duties, as well as his means to the industrial development of this city.

The Ware County Medical Society recognizes a distinct loss on account of his death, and wish to express in the foregoing our appreciation of his life and efforts.

Respectfully submitted,

B. H. MINCHEW, M.D.

D. M. BRADLEY, M.D.

K. MCCULLOUGH, M.D.

Committee, Ware County Medical Society.

ALPHA OMEGA ALPHA HONORARY FRATERNITY

At a recent meeting in Chicago, the directors of Alpha Omega Alpha Honorary Medical Scholars Society adopted the following resolutions in recognition of the eminent services of the late Dr. William W. Root, Slaterville Springs, New York, the founder of the society and secretary-treasurer since its organization in 1902:

1. That all stationery and official documents of the society bear the words, "Founded by William W. Root, 1902.", and

2. That the annual lecture presented each year by a leading medical scientist, be known as the "William W. Root Alpha Omega Alpha Lecture."

The present officers of the society are Walter L. Bierring, Des Moines, president; Austin A. Hayden, Chicago, vice-president; Josiah J. Moore, 55 East Washington Street, Chicago, secretary-treasurer. Mrs. Root will continue as assistant secretary.

In addition to the officers, the directorate includes Ray Lyman Wilbur, Washington, D. C.; Waller S. Leathers, Nashville; Louis B. Wilson, Rochester, Minn., and Willard C. Rappleye, New York City.

The committee on extension and policy comprises Elias P. Lyon, Minneapolis, chairman; William Pepper, Philadelphia; Irving S. Cutter, Chicago; Frederick C. Waite, Cleveland; and Thomas C. Routley, Toronto.

CONGENITAL ATRESIA OF THE COLON IN A NEW BORN

Case Report

WM. WILLIS ANDERSON, M.D.

Atlanta

E. D., a colored female, when 3 days old began to vomit dark, greenish-brown fluid and exhibit abdominal distention. She was normal at birth and nothing unusual was noted prior to this. The nurses report showed that she had 12 meconium stools during the first 36 hours of life. After 36 hours she had no further stools. Her abdominal distention became more acute and the vomiting continued.

A congenital anomaly of the gastro-intestinal tract was suspected. An x-ray examination of her abdomen revealed little else than the marked distention of the



Congenital atresia of the colon. Only a small amount of barium could be passed into the rectum.

stomach and intestines. A small amount of barium passed through the stomach. An attempt at a barium enema showed only a small amount of barium in the rectum.

She was operated upon by Dr. Ira Ferguson when six days old. There was a small amount of clear, free fluid in the abdominal cavity. The stomach and intestines were enormously distended. The colon ended in a fibrous thread about the level of the lower pole of the left kidney. This thread stretched down into the pelvis behind the bladder a distance of 5 cm. and there continued as a rudimentary rectum. An un-

successful attempt was made to pass a catheter up through the rectum further than 3 cm. A colostomy was performed. The baby died the following day. No other congenital anomaly was found at post mortem examination.

478 Peachtree St., N.E.

COUNTIES REPORTING FOR 1933

Randolph County Medical Society

The Randolph County Medical Society announces the following officers for 1933:

President—Crook, W. W., Cuthbert.

Vice-President—Crittenden, A. L., Shellman.

Secretary-Treasurer—Moore, G. Y., Cuthbert.

Delegate—McCurdy, E. C., Shellman.

Censors—F. S. Rogers, E. C. McCurdy and W. G. Elliott.

Walker County Medical Society

The Walker County Medical Society announces the following officers for 1933:

President—Hale, B. C., Rossville.

Vice-President—Alsobrook, J. S., Rossville.

Secretary-Treasurer—Simonton, Fred H., LaFayette.

Delegate—Kitchens, S. B., LaFayette.

Alt. Delegate—Coulter, R. M., LaFayette.

Floyd County Medical Society

The Floyd County Medical Society announces the following officers for 1933:

President—Maddox, R. C., Rome.

Vice-President—Elmore, B. V., Rome.

Secretary-Treasurer—Harbin, R. M., Jr., Rome.

Delegate—Harbin, W. P., Rome.

Alt. Delegate—Garrard, J. L., Rome.

Jackson County Medical Society

The Jackson County Medical Society announces the following officers for 1933:

President—Sanders, Laetus, Commerce.

Vice-President—Allen L. C., Hoschton.

Sec'y.-Treas.—Bennett, J. C., Jefferson.

Macon Medical Society

(Bibb County)

The Macon Medical Society announces the following officers for 1933:

President—Harrold, Thos., Macon.

Vice-President—Bazemore, Wallace L., Macon.

Sec'y.-Treas.—Porch, Leon D., Macon.

Delegate—Weaver, O. H., Macon.

Delegate—Ridley, C. L., Macon.

Alt. Delegate—Hinton, Chas. C., Macon.

Alt. Delegate—Webb, Fred L., Macon.

Fulton County Medical Society

The Fulton County Medical Society announces the following officers for 1933:

President—Barber, W. E., Atlanta.

President-Elect—Pruitt, M. C., Atlanta.

Vice-President—Massee, J. C., Atlanta.

Sec'y.-Treas.—Hailey, Howard, Atlanta.

Dr. W. A. Selman, Atlanta, was elected to the Board of Trustees; Dr. Newdigate M. Owensby, Atlanta, Board of Arbiters.

CONTINUOUS MEMBERSHIP REALLY VITAL

The following paragraphs are quoted from an editorial in the *Ohio State Medical Journal* for December, 1932:

"As the New Year approaches, it becomes increasingly evident that the medical profession is gradually being forced into a position where it will have to make a decisive answer to some of the challenges publicly proclaimed by those who would revolutionize existing methods of medical practice.

"Medicine today is confronted with realities; with problems of unprecedented importance. It is face to face with the responsibility of choosing to wage a militant movement in defense of principles which it knows to be sound socially, economically and scientifically, or to peaceably acquiesce to the complete socialization of medical practice, which some have predicted as inevitable.

"Judging from the record of the medical profession and the character of its personnel, we hazard the prediction that medicine will choose to fight when necessary. The challenges of its critics will be answered. Constructive policies will be evolved. Readjustments will be made by the profession in such a way that the fundamental principles underlying the present system will be safeguarded, but programs which will meet the demands of social evolution developed.

"What the ultimate outcome will be, none can predict.

"However, one thing is certain.

"Nothing can be or will be accomplished unless there is teamwork, sympathetic co-operation and group activity on the part of the entire medical profession, local, state and national.

"Nothing which might be said could be more applicable to the situation now confronting the medical profession than the following comment made by a keen observer of present-day economic and social trends: 'In this world of modern business with its complexities no man can stand alone. The individual, no matter how strong as an individual, is weak without the strength of his group.'"

MEETING OF THE TENTH DISTRICT MEDICAL SOCIETY AND THE RICHMOND COUNTY MEDICAL SOCIETY

A joint meeting of the Tenth District Medical Society and the Richmond County Medical Society was held in Louisville on November 17th, Dr. A. J. Kilpatrick, Augusta, President, presided. Approximately fifty members were present. Our honor guests were: Dr. Chas. H. Richardson, President-Elect of the Medical Association of Georgia, and Dr. O. H. Weaver, of Macon.

As the Woman's Auxiliary to the Tenth District Medical Society was having its semi-annual meeting, the members and their guests joined the gentlemen at a turkey dinner at the Jefferson Hotel.

The excellent program consisted of a number

of musical selections, songs and contests were arranged by the auxiliary, with Mrs. S. C. Ketchin, of Louisville, presiding most charmingly.

Responses were made by Mrs. S. T. R. Revell, President of the Woman's Auxiliary to the Medical Association of Georgia; Mrs. James B. Dillard, President Tenth District Auxiliary; Drs. Richardson, Weaver and Kilpatrick. At the close of the afternoon session, the doctors, their wives and visitors, were delightfully entertained at an informal reception at the attractive home of Dr. and Mrs. S. T. R. Revell.

Scientific Program

Address—"Medical Legislative Program"—Dr. Chas. H. Richardson, Macon.

"Suggestions for the Teaching of Psychiatry to Nurses"—Dr. Geo. L. Echols, Milledgeville.

"Observations of the Medical Management of State Sanitarium"—Dr. Raymond Saurez, Jr., Milledgeville.

"Advantages of Removal of Tonsils by Dissection"—Dr. J. M. Hull, Augusta.

"Cancer of the Rectum"—Dr. George A. Traylor, Augusta.

"The Feeding of Children Who Object to Eating"—Dr. C. M. Burpee, Augusta.

Election of officers for Tenth District Medical Society:

Dr. S. T. R. Revell, Louisville, President.

Dr. N. J. Newsom, Sandersville, Vice-President.

Dr. J. J. Pilcher, Wrens, Secretary-Treasurer.

J. J. PILCHER, M.D.,

Secretary.

Wrens, Ga.

November 30, 1932.

Committee for Study of Maternal Mortality and Infant Deaths

M. Hines Roberts, Atlanta, Chairman.

First District

Guy G. Lunsford, Millen.

A. J. Waring, Savannah.

Second District

I. M. Lucas, Albany.

S. L. Cheshire, Thomasville.

Third District

T. J. McArthur, Cordele.

J. C. Patterson, Cuthbert.

Fourth District

Thomas S. Bailey, Newnan.

S. C. Rutland, LaGrange.

Fifth District

C. B. Upshaw, Atlanta.

M. Hines Roberts, Atlanta.

Sixth District

E. F. Griffith, Eatonton.

J. D. Applewhite, Macon.

Seventh District

P. O. Chaudron, Cedartown.

J. E. Lester, Marietta.

Eighth District

John W. Simmons, Brunswick.

G. T. Crozier, Valdosta.

Ninth District

C. L. Ayers, Toccoa.

D. H. Garrison, Tate.

Tenth District

S. S. Smith, Athens.

William A. Mulherin, Augusta.

OFFICERS AND COMMITTEES OF THE ASSOCIATION 1932-1933

NEXT ANNUAL SESSION, MACON, MAY 9, 10, 11, 12, 1933

Officers

President—Marvin M. Head, Zebulon.
President-Elect—C. H. Richardson, Macon.
First Vice-President—A. A. Morrison, Savannah.
Second Vice-President—D. H. Garrison, Tate.
Secretary-Treasurer—Allen H. Bunce, Atlanta.
Parliamentarian—John W. Simmons, Brunswick.

Delegates to the A. M. A.

William H. Myers, Savannah (1933-4).
Alternate, Wm. A. Mulherin, Augusta.
C. W. Roberts, Atlanta (1933-4).
Alternate, M. C. Pruitt, Atlanta.
O. H. Weaver, Macon (1932-3).
Alternate, C. K. Sharp, Arlington.

Council

C. L. Ayers, Toccoa, Chairman.
M. M. McCord, Rome, Clerk.

Councilors

1. William H. Myers, Savannah (1933).
2. J. A. Redfearn, Albany (1933).
3. J. C. Patterson, Cuthbert (1933).
4. O. W. Roberts, Carrollton (1933).
5. W. A. Selman, Atlanta (1934).
6. K. S. Hunt, Griffin (1934).
7. M. M. McCord, Rome (1934).
8. H. M. Fullilove, Athens (1934).
9. C. L. Ayers, Toccoa (1935).
10. S. J. Lewis, Augusta (1935).
11. J. E. Penland, Waycross (1935).
12. J. Cox Wall, Eastman (1935).

Vice-Councilors

1. C. Thompson, Millen (1933).
2. R. F. Wheat, Bainbridge (1933).
3. Chas. A. Greer, Oglethorpe (1933).
4. W. H. Clark, LaGrange (1933).
5. Marion C. Pruitt, Atlanta (1934).
6. A. H. Frye, Griffin (1934).
7. W. H. Perkinson, Marietta (1934).
8. M. A. Hubert, Athens (1934).
9. Grady N. Coker, Canton (1935).
10. H. D. Allen, Jr., Milledgeville (1935).
11. K. McCullough, Waycross (1935).
12. E. B. Claxton, Dublin (1935).

COMMITTEES

Scientific Work

James E. Paullin, Atlanta, Chairman (1933).
William R. Houston, Augusta (1934).
Chas. E. Waits, Atlanta (1935).
Allen H. Bunce, Atlanta, Secretary-Treasurer.

Public Policy and Legislation

Dan Y. Sage, Atlanta, Chairman (1934).
A. R. Rozar, Macon (1933).
Grady N. Coker, Canton (1935).
Allen H. Bunce, Atlanta, Secretary-Treasurer.
T. F. Abercrombie, Atlanta, Director, Department of Public Health, State of Georgia.

Medical Defense

Frank K. Boland, Atlanta, Chairman (1933).
Wm. A. Mulherin, Augusta (1934).
J. O. Elrod, Forsyth (1936).
C. L. Ayers, Toccoa, Chairman of Council.
Allen H. Bunce, Atlanta, Secretary-Treasurer.

Hospitals

R. H. Oppenheimer, Atlanta, Chairman (1937).
G. Y. Massenburg, Macon (1933).
K. McCullough, Waycross (1934).
George F. Klugh, Atlanta (1935).
Arthur D. Little, Thomasville (1936).

Abner Wellborn Calhoun Lectureship

James E. Paullin, Atlanta, Chairman (1933).
H. I. Reynolds, Athens (1934).
Eugene E. Murphey, Augusta (1935).
Craig Barrow, Savannah (1936).
Frank K. Boland, Atlanta (1937).

Necrology

A. J. Mooney, Statesboro, Chairman.
James M. Smith, Valdosta.
John T. McCall, Rome.

History: Sub-Committee

Frank K. Boland, Atlanta, Chairman.
William R. Dancy, Savannah.
Arthur G. Fort, Atlanta.

Crawford W. Long Memorial Prize

William R. Dancy, Savannah, Chairman.
Stewart R. Roberts, Atlanta.
V. P. Sydenstricker, Augusta.
George Bachmann, Atlanta.
Edgar R. Pund, Augusta.

Cancer Commission

J. L. Campbell, Atlanta, Chairman.
William H. Myers, Savannah.
Chas. H. Watt, Thomasville.
G. Y. Moore, Cuthbert.
E. R. Park, LaGrange.
C. C. Harrold, Macon.
R. M. Harbin, Rome.
Stewart D. Brown, Royston.
M. B. Allen, Hoschton.
G. T. Bernard, Augusta.
James J. Clark, Atlanta.
Mrs. J. Bonar White, Atlanta (Representative of Woman's Auxiliary).

Advisory Committee—Woman's Auxiliary

B. H. Minchew, Waycross, Chairman.
Marion T. Benson, Atlanta.
R. V. Martin, Savannah.
S. T. R. Revell, Louisville.
Arthur G. Fort, Atlanta.

Fraternal Delegate to State Dental Society

M. E. Winchester, Atlanta.

Fraternal Delegates to Other State Meetings

To visit Alabama: Frank P. Norman, Columbus;
B. T. Wise, Americus.
To visit Florida: Arthur G. Fort, Atlanta; Albert F. Saunders, Valdosta.
To visit North Carolina: Stewart R. Roberts, Atlanta; C. D. Wheelchel, Gainesville.
To visit South Carolina: J. K. Quattlebaum, Savannah; C. C. Aven, Atlanta.
To visit Tennessee: H. C. Sauls, Atlanta; Thos. E. McBryde, Rockmart.

Directory of the Medical Association of Georgia for 1932

Names of all members and officers are published as corrected by Secretaries of county societies.

BALDWIN COUNTY

Officers

President.....Wiley, Jno. D.
Vice-President.....Evans, R. E.
Secretary-Treasurer.....Allen, H. D.
Delegate.....Scott, W. M.

Members

Allen, E. W., Milledgeville
Allen, H. D., Milledgeville
Anderson, S. A., Milledgeville
Binion, Richard, Milledgeville
Bostwick, W. A., Milledgeville
Cox, C. G., Milledgeville
Echols, Geo. L., Milledgeville
Evans, R. E., Milledgeville
Garrard, J. I., Milledgeville
Hunt, D. J., U. S. P. H. S., Milledgeville (Hon.)
Lamar, R. V., Milledgeville
Langston, M. F., Milledgeville (Hon.)
Longino, L. P., Milledgeville
Moran, O. F., Milledgeville
Scott, W. M., Milledgeville
Swint, R. C., Milledgeville
Walker, N. P., Milledgeville
Wheeler, G. A., Milledgeville (Hon.)
Wiley, John D., Milledgeville
Wood, O. C., Milledgeville
Yarbrough, Y. H., Milledgeville

BARROW COUNTY

Officer

Secretary-Treasurer.....Mathews, W. L.

Members

Almand, C. B., Winder
Harris, E. R., Winder
Mathews, W. L., Winder

BARTOW COUNTY

Officers

President.....Wofford, W. E.
Vice-President.....Lowry, T.
Secretary-Treasurer.....Shamblin, A. C.
Delegate.....Lowry, T.

Members

Adair, R. E., Cartersville
Bowdoin, J. P., Adairsville
Bradford, H. B., Pine Log
Burton, R. E., Kingston
Ellis, Chas. L., Kingston
Griffin, W. C., Cartersville
Horton, A. L., Cartersville
Howell, S. M., Cartersville
Lowry, T., Cartersville
McGowan, H. S., Cartersville
Murdock, J. L., Emerson (Hon.)
Shamblin, A. C., Cartersville
Wofford, W. E., Cartersville

BEN HILL COUNTY

Officers

President.....Russell, Ralph E.
Vice-President.....Coffee, W. P.

Secretary-Treasurer.....Osborne, L. S.
Delegate.....Willis, G. W.

Members

Coffee, W. P., Fitzgerald
Dorminy, W. D., Fitzgerald
Harper, A., Wray
McElroy, S. L., Ocilla
Osborne, L. S., Fitzgerald
Russell, Ralph E., Fitzgerald
Ware, D. B., Fitzgerald
Ware, R. M., Fitzgerald
Willis, G. W., Ocilla

BIBB COUNTY

Officers

President.....Fountain, Jas. A.
Vice-President.....Newman, W. A.
Secretary-Treasurer.....Chrisman, W. W.
Delegate.....Weaver, O. H.
Delegate.....Kay, J. B.

Members

Adams, I. H., Georgia Casualty Bldg., Macon
Anderson, C. L., Macon National Bank Bldg., Macon
Anderson, J. C., Georgia Casualty Bldg., Macon
Applewhite, J. D., Health Department, Macon
Atkinson, H. C., 700 Spring St., Macon
Bashinski, Benj., 700 Spring St., Macon
Bazemore, W. L., Macon National Bank Bldg., Macon
Boswell, W. Chas., Oglethorpe Infirmary, Macon
Brown, J. F., Middle Georgia Sanatorium, Macon
Chrisman, W. W., 700 Spring St., Macon
Clark, M. A., Georgia Casualty Bldg., Macon (deceased)
Clay, J. Emory, The Clinic, Macon
Coleman, Y. R., 124 Hardeman Ave., Macon
Corn, Ernest, 700 Spring St., Macon
Coward, J. W., Walden
Daniel, Orman, Citizens & Southern National Bank Bldg., Macon
Derry, H. P., 664 College St., Macon (Hon.)
Dove, W. B., 135 Boulevard Ave., Macon
Farmer, C. Hall, The Clinic, Macon
Fountain, J. A., Oglethorpe Infirmary, Macon
Garrard, J. A., Roberta
Golsan, W. R., 794 Courtland Ave., Macon
Goolsby, R. Cullen, Jr., 700 Spring St., Macon
Greene, B. W., Bibb Bldg., Macon
Hall, J. I., Georgia Casualty Bldg., Macon

Hall, T. H., 617 Mulberry St., Macon
Harrold, Chas. C., 700 Spring St., Macon
Harrold, Thos., 700 Spring St., Macon
Hembree, J. A., Jeffersonville
Hinton, Chas. C., 700 Spring St., Macon
Holmes, J. P., 700 Spring St., Macon
Hurley, T. A., The Clinic, Macon
Johnson, J. E. L., Roberta
Kay, J. B., Byron
Keen, O. F., Oglethorpe Infirmary, Macon
Keiser, John M., Bibb Bldg., Macon
Kemp, A. P., Georgia Casualty Bldg., Macon
King, J. L., Grand Bldg., Macon
Martin, J. W., Bibb Bldg., Macon
Massenburg, G. Y., The Clinic, Macon
McAfee, J. C., Georgia Casualty Bldg., Macon
McAfee, L. C., Bibb Bldg., Macon
McMichael, V. H., Macon National Bank Bldg., Macon
Meriwether, W. W., Georgia Casualty Bldg., Macon
Miller, G. T., Citizens & Southern Nat'l. Bank Bldg., Macon (Hon.)
Mitchell, Frank B., Greensboro, N. C.
Mobley, W. E., 700 Spring St., Macon
Moses, Harry, Georgia Casualty Bldg., Macon
Newman, W. A., 700 Spring St., Macon
Newton, R. G., Georgia Casualty Bldg., Macon
Palmer, S. B., Macon National Bank Bldg., Macon
Penington, C. L., 700 Spring St., Macon
Phillips, A. M., Macon Hospital, Macon
Porch, Leon D., 1403 Oglethorpe St., Macon
Rawls, Lewis L., Georgia Casualty Bldg., Macon
Respass, H., Grand Bldg., Macon (deceased)
Richardson, Chas. H., 700 Spring St., Macon
Ridley, C. L., Bankers Health & Life Bldg., Macon
Rogers, T. E., 700 Spring St., Macon
Ross, J. T., Citizens & Southern Bank Bldg., Macon (Hon.)
Rozar, A. R., Oglethorpe Infirmary, Macon
Rubin, S. N., Bibb Bldg., Macon
Saye, E. B., Macon Hospital, Macon
Sigman, J. M., Georgia Casualty Bldg., Macon
Smith, J. Allen, 700 Spring St., Macon
Stewart, W. K., 700 Spring St., Macon
Thompson, O. R., 700 Spring St., Macon
Walker, C. H., 617 Mulberry St., Macon
Walker, D. D., 700 Spring St., Macon
Wasden, C. N., Georgia Casualty Bldg., Macon

Watson, O. O., The Clinic, Macon
 Weaver, H. G., 700 Spring St., Macon
 Weaver, O. H., 700 Spring St., Macon
 Webb, F. L., Bibb Bldg., Macon
 Williams, W. A., Georgia Casualty
 Bldg., Macon
 Winship, Herring, 403 Cherry St.,
 Macon
 Wright, J. E., 324 College St., Macon

BLUE RIDGE SOCIETY

(Fannin, Gilmer, Union Counties)

Officers

President.....Tankersley, J. S.
 Secretary-Treasurer.....Crawford, C. B.
 Delegate.....Davies, J. M.

Members

Crawford, C. B., Blue Ridge
 Davies, J. M., Blue Ridge
 Rogers, W. H., Young Cane
 Tankersley, J. S., Ellijay

BROOKS COUNTY**Members**

Jelks, E. L., Quitman
 McMichael, J. R., Quitman
 Smith, L. A., Quitman

**BULLOCH-CANDLER-EVANS
COUNTIES****Officers**

President.....Kennedy, W. D.
 Vice-President.....Cone, R. L.
 Secretary-Treasurer.....Simmons, W. E.
 Delegate.....Mooney, A. J.
 Alt. Delegate.....Simmons, W. E.

Members

Cone, R. L., Statesboro
 Daniel, J. W., Claxton
 Ellis, S. T., Claxton
 Jones, B. B., Metter
 Kennedy, R. L., Metter
 Kennedy, W. D., Metter
 Mooney, A. J., Statesboro
 McElveen, J. M., Brooklet
 Simmons, W. E., Metter
 Watkins, E. C., Brooklet

BURKE COUNTY**Officers**

President.....Hillis, W. W.
 Secretary-Treasurer.....Byne, J. M., Jr.
 Delegate.....McCarver, W. C.

Members

Bent, H. F., Midville
 Byne, J. M., Jr., Waynesboro
 Cook, J. M., Sardis
 Fulcher, M. O., Waynesboro
 Hillis, W. W., Sardis
 Lowe, W. R., Midville
 McCarver, W. C., Vidette
 Miller, R. L., Waynesboro
 Smith, B. H., Keysville

BUTTS COUNTY**Officer**

Secretary-Treasurer.....Hammond, R. L.

Members

Akin, B. F., Jackson
 Hammond, Robert L., Jackson
 Howell, O. B., Jackson

CAMPBELL COUNTY**Officers**

President.....Camp, W. R.
 Vice-President.....Bullard, T. P.
 Secretary-Treasurer.....Green, A. J.
 Delegate.....Camp, R. T.

Members

Bullard, T. P., Palmetto
 Camp, R. T., Fairburn
 Camp, W. R., Fairburn
 Green, A. J., Union City

CARROLL COUNTY**Officers**

President.....Barker, H. L.
 Vice-President.....Scales, S. F.
 Sec'y.-Treas.....Goodwyn, H. J.
 Delegate.....Reese, D. S.

Members

Barker, H. L., Carrollton
 Baskin, C. L., Temple
 Burnett, G. W., Whitesburg (Hon.)
 Camp, J. B., Carrollton (Hon.)
 (deceased)
 Fitts, C. C., Carrollton
 Goodwyn, H. J., Carrollton
 Griffis, J. C., Burwell (Hon.)
 Hogue, W. L., Villa Rica
 King, O. D., Bremen
 Nutt, J. J., Bowdon, R.I
 Powell, B. C., Villa Rica
 Powell, J. E., Villa Rica
 Reese, D. S., Carrollton
 Roberts, O. W., Carrollton
 Scales, S. F., Carrollton, R.I
 Smith, W. P., Bowdon
 Wilson, L. E., Bowdon

CHATHAM COUNTY

(Georgia Medical Society)

Officers

President.....Cole, Wm. A.
 President-Elect.....Drane, Robt.
 Vice-President.....Elliott, J. L.
 Sec'y.-Treas.....Schwalb, Otto W.
 Delegate.....Martin, R. V.
 Delegate.....Lang, G. H.
 Alt. Delegate.....Usher, Chas.
 Alt. Delegate.....Charlton, T. J.

Members

Anderson, J. J., Forsyth Apartments,
 Savannah.
 Baker, J. O., 126 East Oglethorpe Ave.,
 Savannah
 Barrow, Craig, Chippewa Square,
 Savannah
 Bassett, V. H., City Hall, Savannah
 Blake, H. H., 408 Abercorn St., Savan-
 nah
 Blitch, J. R., Ellabell (Hon.)
 Bray, S. E., DeRenne Apartments, Sa-
 vannah
 Broderick, J. R., 114 East Jones St.,
 Savannah
 Charlton, T. J., 220 East Oglethorpe
 Ave., Savannah
 Chisholm, J. F., 512 Abercorn St.,
 Savannah
 Clay, T. S., 120 East Jones St., Savan-
 nah
 Cole, Wm. A., 20 East Taylor St., Sa-
 vannah
 Compton, H. T., 14 East Taylor St.,
 Savannah
 Corson, E. R., 11 West Jones St., Sa-
 vannah
 Crawford, W. B., 14 East Taylor St.,
 Savannah
 Dancy, Wm. R., 102 West Jones St.,
 Savannah
 Daniel, John W., Jr., 14 East Taylor
 St., Savannah
 Daniel, John W., 102 East Henry St.,
 Savannah

DeCardeuc, St., J. R., DeRenne Apart-
 ments, Savannah
 DeLoach, L. A., 121 West Jones St.,
 Savannah
 Demmond, E. C., DeRenne Apartments,
 Savannah
 Drane, Robert, DeRenne Apartments,
 Savannah
 Dunn, L. B., 201 East York St., Savan-
 nah
 Edwards, D. B., 604 Drayton St., Sa-
 vannah
 Egan, M. J., Jr., 110 East Liberty St.,
 Savannah
 Elliott, J. L., Hotel DeSoto, Savannah
 Epting, M. J., 7 West Gordon St.,
 Savannah
 Exley, H. T., 116 East Jones St., Sa-
 vannah
 Faggart, G. H., 18 West Oglethorpe
 Ave., Savannah
 Gleaton, E. N., 213 East Gaston St.,
 Savannah
 Graham, R. E., 9 West Gordon St.,
 Savannah
 Harman, Geo. L., 116 East Gaston St.,
 Savannah
 Harris, R. V., 19 East Gordon St., Sa-
 vannah (Hon.)
 Heriot, Geo. W., Jr., 111 East Ogle-
 thorpe Ave., Savannah
 Hesse, H. W., 106 East Jones St.,
 Savannah
 Holton, C. F., 21 East Gordon St.,
 Savannah
 Howard, Lee, DeRenne Apartments,
 Savannah
 Howkins, John S., 612 Drayton St., Sa-
 vannah
 Iseman, E., 105 East Jones St., Savan-
 nah
 Johnson, G. H., 116 East Oglethorpe
 Ave., Savannah
 Jones, Jabez, DeRenne Apartments,
 Savannah
 Jones, J. P., 109 East Jones St., Savan-
 nah
 Kandel, H. M., 213 East Gaston St.,
 Savannah
 Lang, G. H., 204 East Liberty St., Sa-
 vannah
 Lattimore, Ralston, 13 East Jones St.,
 Savannah
 Lee, Lawrence, DeRenne Apartments,
 Savannah
 Levington, H. L., 209 East Gaston St.,
 Savannah
 Long, W. V., Hotel DeSoto, Savannah
 Manor, E. N., 19 East Gordon St.,
 Savannah
 Martin, R. V., 109 West Jones St., Sa-
 vannah
 Massoud, M. A., Pineora
 McGee, H. H., 14 East Taylor St.,
 Savannah
 Metts, Jas. C., 3 East Gordon St.,
 Savannah
 Morrison, A. A., 108 East Jones St.,
 Savannah
 Myers, Wm. H., 402 Drayton St., Sa-
 vannah
 Neville, R. L., 718 Drayton St., Sa-
 vannah
 Norton, W. A., 105 East Oglethorpe
 Ave., Savannah
 Olmstead, G. T., 20 East Taylor St.,
 Savannah

O'Neill, J. C., 202 East Liberty St., Savannah
 Quattlebaum, Julian K., 3 West Perry St., Savannah
 Redmond, C. G., 707 Barnard St., Savannah
 Righton, H. Y., 101 East Waldburg St., Savannah
 Riner, C. R., 2 East Liberty St., Savannah
 Sanford, Shelton P., U. S. Marine Hospital, Savannah
 Schwalb, Otto W., 1 East Gordon St., Savannah
 Sharpley, H. F., 435 Drayton St., Savannah
 Shaw, L. W., 228 East Oglethorpe Ave., Savannah
 Shearouse, Wm., 14 East Taylor St., Savannah
 Smith, W. K., Pembroke
 Tarver, H. R., Guyton (deceased)
 Taylor, Lloyd B., 601 Whitaker St., Savannah
 Thomas, M. R., 202 East Oglethorpe Ave., Savannah
 Tippins, H. L., 12 West Jones St., Savannah
 Touchton, G. L., 7 West York St., Savannah
 Train, J. K., 1107 Bull St., Savannah
 Usher, Chas., 6 East Liberty St., Savannah
 Usher, J. A., 1 East Henry St., Savannah
 Waring, A. J., DeRenne Apartments, Savannah
 Waring, T. P., DeRenne Apartments, Savannah
 Whelan, E. J., 14 West Jones St., Savannah
 Williams, L. W., 119 East Liberty St., Savannah

CHATTOOGA COUNTY**Officers**

President.....Hall, F. W.
 Vice-President.....Bryant, W. J.
 Sec'y.-Treas.....Brown, H. D.

Members

Brown, H. D., Summerville
 Bryant, W. J., Summerville
 Clements, J. W., Gore (Hon.)
 Funderburk, N. A., Trion
 Hair, W. B., Summerville
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 Johnson, J. E., Elberton
 Johnson, W. A., Elberton
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 Harbin, R. M., Sr., Rome
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 Atlanta
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 ville
 Artega, Oliver, 948 Oakdale Road, At-
 lanta (Asso.)
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 N.W., Atlanta
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 Atlanta
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 Atlanta
 Ayer, G. D., 152 Forrest Ave., N.E.,
 Atlanta

- Ayers, A. J., Medical Arts Bldg., Atlanta
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- Baggett, L. G., 478 Peachtree St., N.E., Atlanta
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- Baird, J. Mason, Medical Arts Bldg., Atlanta
- Baird, N. W., 607½ Lee St., S.W., Atlanta
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- Baker, W. Pope, 157 Forrest Ave., N.E., Atlanta
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- Ballenger, W. L., 478 Peachtree St., N.E., Atlanta
- Bancker, E. A., 139 Forrest Ave., N.E., Atlanta
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- Blincoe, Homer, Emory University (Asso.)
- Block, E. B., 478 Peachtree St., N.E., Atlanta (deceased)
- Boland, Frank K., 478 Peachtree St., N.E., Atlanta
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- Bosworth, J. M., Wesley Memorial Hospital, Emory University (Asso.)
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 Bernard, G. T., 203 Thirteenth St.,
 Augusta
 Blanchard, P. G., Appling
 Brittingham, John W., Southern Fi-
 nance Bldg., Augusta
 Brown, T. P., Marion Bldg., Augusta
 Bryans, C. I., Southern Finance Bldg.,
 Augusta
 Bryant, V. L., Bartow
 Burdshaw, J. F., 724 Monte Sano Ave.,
 Augusta
 Burpee, C. M., University Hospital
 Augusta
 Butler, J. H., Southern Finance Bldg.,
 Augusta
 Chaney, R. H., 1001 Greene St.,
 Augusta
 Clayton, Malcolm D., 811 Metcalf St.,
 Augusta
 Crane, C. W., 1345 Greene St., Augusta
 Crichton, Robt. B., Southern Finance
 Bldg., Augusta
 Davidson, A. A., 1116 Greene St.,
 Augusta
 Eve, H. J., 619 Greene St., Augusta
 Gibson, C., Thomson
 Goodrich, W. H., Southern Finance
 Bldg., Augusta
 Gray, J. D., 1345 Greene St., Augusta
 Harrel, H. P., Southern Finance Bldg.,
 Augusta
 Hensley, E. A., 1812 Watkins St.,
 Augusta
 Holmes, L. P., Southern Finance Bldg.,
 Augusta
 Horne, Geo. T., Southern Finance Bldg.,
 Augusta
 Houston, W. R., Margaret Wright
 Hospital, Augusta
 Hul, J. M., 753 Broad St., Augusta
 (Hon.)
 Kellogg, W. C., Southern Finance
 Bldg., Augusta
 Kelly, G. Lombard, Medical College,
 Augusta
 Kershaw, Theo., Southern Finance
 B'dg., Augusta
 Kilpatrick, A. J., 407 Seventh St.,
 Augusta
 Kilpatrick, Chas. M., 1345 Greene St.,
 Augusta
 Lee, F. Lansing, Southern Finance
 B'dg., Augusta
 Levy, M. S., Southern Finance Bldg.,
 Augusta
 Lewis, S. J., Southern Finance Bldg.,
 Augusta
 May, E. R., Lincolnton
 Mealing, H. G., Martintown Road,
 R. F. D., Augusta
 Michel, H. M., Southern Finance Bldg.,
 Augusta
 Milligan, K. W., 942 Greene St.,
 Augusta
 Moss, W. L., Medical College, Augusta
 Mosteller, Ralph, Medical College,
 Augusta
 Mountain, G. W., 2612 Walton Way,
 Augusta
 Mulherin, F. X., Shirley Apartments,
 Augusta
 Mulherin, Wm. A., Shirley Apartments,
 Augusta
 Murphey, E. E., 432 Telfair St., Augusta
 Oden, Jno. W., Gracewood

Oertel, T. E., Southern Finance Bldg.,
 Augusta
 Page, Hugh N., Southern Finance Bldg.,
 Augusta
 Philpot, W. K., Lamar Bldg., Augusta
 Phinizy, Irvine, Southern Finance
 Bldg., Augusta
 Phinizy, Thomas, 722 Greene St.,
 Augusta
 Ponton, T. R., University Hospital,
 Augusta
 Price, W. T., Montgomery Bldg.,
 Augusta
 Pund, Edgar, Medical College, Augusta
 Rhodes, R. L., Southern Finance Bldg.,
 Augusta
 Roberts, W. H., 828 Greene St., Augusta
 Robertson, J. R., 1345 Greene St.,
 Augusta
 Rosen, Samuel F., 4 East Jones St.,
 Savannah
 Roule, J. Victor, Public Health Labora-
 tory, Atlanta
 Scharnitzky, E. O., Southern Finance
 Bldg., Augusta
 Shaw, H. W., Southern Finance Bldg.,
 Augusta
 Sherman, John H., 1122 Johns Road,
 Augusta
 Silver, D. M., Southern Finance Bldg.,
 Augusta
 Sydenstricker, V. P., University Hos-
 pital, Augusta
 Tessier, L. P., Masonic Temple,
 Augusta
 Thomas, D. R., Jr., University Hos-
 pital, Augusta
 Thurmond, J. W., 407 Seventh St.,
 Augusta
 Timmons, C. C., Milledge Road,
 Augusta
 Todd, L. N., Board of Tuberculosis
 Hospital, VaLey Station, Ky.
 Traylor, Geo. A., Southern Finance
 Bldg., Augusta
 Wade, A. C., Marion Bldg., Augusta
 Ward, C. D., 1345 Greene St., Augusta
 Weeks, J. L., Harlem
 Weeks, Richard B., Southern Finance
 Bldg., Augusta
 Wilcox, E. A., Southern Finance Bldg.,
 Augusta
 Wright, Geo. W., Southern Finance
 Bldg., Augusta
 Wright, Jno. C., Southern Finance
 Bldg., Augusta
 Wright, P. B., Lamar Bldg., Augusta

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 (deceased)
 Anthony, J. R., Griffin
 Copeland, H. J., Griffin

Copeand, H. W., Griffin
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 Frye, A. H., Griffin
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 Wise, B. T., Americus
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 Fussell, T. D., Rhine
 Kennon, B. M., McRae
 Maloy, C. J., Helena
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 Hill, Roy A., Thomasville

Jarrell, W. W., Thomasville
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 Little, A. D., Thomasville
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 Reid, Jas. W., Thomasville
 Sanchez, S. E., Barwick
 Vann, H. A., Boston (Hon.)
 Wahl, Ernest F., Thomasville
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 Mercer, J. E., Vidalia
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 Cheshire, J. L., Damascus
 Gunter, G. O., Blakely
 Hays, W. C., Colquitt
 Holland, S. P., Blakely (deceased)
 Sharp, C. K., Arlington
 Shepard, W. O., Blufiton
 Standifer, J. G., Blakely
 Standifer, W. B., Blakely (Hon.)
 Ward, L. C., Damascus

TRI SOCIETY

(Liberty, Long, McIntosh)

Member

Armistead, I. G., Warsaw

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 Clark, W. H., LaGrange
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 Park, E. R., LaGrange
 Phillips, W. P., LaGrange
 Slack, H. R., LaGrange
 Smith, M. E., Grantville
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 Rogers, F. W., Ashburn
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 Sec'y.-Treas. Carter, R. L.
 Delegate McKenzie, J. M.
 Alt. Delegate Adams, B. C.

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 Barron, H. A., Thomaston (Hon.)
 Bridges, B. L., Thomaston
 Carter, R. L., Thomaston
 Garner, J. E., Thomaston
 Harris, C. A., The Rock
 McKenzie, J. M., Thomaston
 Wilson, Samuel, Yatesville
 Woodall, F. M., Thomaston

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 Delegate Alsobrook, J. S.
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 Kitchen, S. B., LaFayette
 Murphy, M. W., Ringgold
 Shields, H. F., Chickamauga
 Shields, J. A., LaFayette
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 Spearman, M. W., Chickamauga
 Wood, J. P., Flintstone (Hon.)

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 Vice-President Aycock, T. R.
 Sec'y. Treas. Lott, W. H.
 Delegate Pirkle, J. A.
 Alt. Delegate Aycock, T. R.

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 Day, J. B. H., Social Circle
 Lott, W. H., Monroe
 Nunnally, H. B., Monroe
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 Stewart, Phil R., Monroe
 Upshaw, H. L., Social Circle
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 Vice-President Witmer, C. A.
 Sec'y.-Treas. McCullough, K.

Delegate Penland, J. E.

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 Bagley, J. B., Waycross
 Bradley, D. M., Waycross
 Brown, A. G., Waycross
 Bustel, B. R., Waycross
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 Carswell, H. J., Waycross
 DeLoach, A. W., Waycross
 Fleming, A., Folkston
 Folks, W. M., Waycross (deceased)
 Hafford, W. C., Waycross
 Hendry, G. T., Blackshear
 Huey, H. G., Homerville
 Johnson, R. L., Waycross
 McCullough, K., Waycross
 Minchew, B. H., Waycross
 Mixson, W. D., Waycross
 Penland, J. E., Waycross
 Pomeroy, W. L., Waycross
 Reavis, W. F., Waycross
 Seaman, H. A., Waycross
 Stephens, C. M., Waycross
 Williams, A. D., Waycross
 Witmer, C. A., Waycross

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Members

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 Ricketson, F. B., Warrenton

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 Sec'y.-Treas. Cason, W. M.
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 Lennard, O. D., Tennille
 Lozier, N. H., Sandersville
 Malone, Steve B., Sandersville
 Mitchell, L. C., Sandersville
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 Rawlings, F. B., Sandersville
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 Taylor, Ralph L., Davisboro
 Vickers, T. E., Wrightsville

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 Sec'y.-Treas. Gordon, A. J.
 Delegate Colvin, J. T.
 Alt. Delegate Tyre, J. L.

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 Gordon, A. J., Jesup
 Moody, E. A., Odum
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 Ritch, T. G., Jesup
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 Delegate Starr, Trammell

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 Bradley, R. S., Dalton
 Broaddrick, G. L., Dalton
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 Erwin, H. L., Dalton
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 Kennedy, B. L., Dalton
 Lacewell, J. F., Dalton (Hon.)
 McAfee, J. G., Dalton
 Neal, T. C., Oxford, Ala.
 Rolins, J. C., Dalton
 Shellhorse, E. O., Dalton
 Starr, Trammell, Dalton
 Steed, J. H., Dalton
 Wood, Lloyd, Dalton

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 Sec'y.-Treas. Gammage, J. T.
 Delegate Williams, L. A.
 Alt. Delegate Gammage, J. T.

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 Gammage, Jas. T., Pineview
 Harris, E. C., Rochelle
 Mitchell, Steven R., Pineview (Hon.)
 Williams, L. A., Abbeville

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Members

Casteel, L. R., Metasville
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 Sec'y.-Treas. Sumner, Gordon S.

Members

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 Crumbley, J. J., Sylvester
 Hall, Warren J., Oakfield (Hon.)
 McCoy, H. S., Sylvester
 Sumner, G. S., Poulan
 Tipton, W. C., Sylvester
 Tracy, J. L., Sylvester

BOOKS RECEIVED

Children's Tonsils In Or Out—A Critical Study of the End Results on Tonsillectomy. By Albert D. Kaiser, M.D., Associate Professor of Pediatrics, University of Rochester Medical School; Chief Pediatrician, Rochester General Hospital; Pediatrician, Rochester Dental Dispensary. Contains 307 pages—illustrated. Publishers: J. B. Lippincott Company, Philadelphia, Pennsylvania.

Hospital Practice for Interns. By the Council on Medical Education and Hospitals and the Council on Pharmacy and Chemistry of the American Medical Association. In the preface it is stated that, "This book is prepared as a co-operative effort between the Council on Pharmacy and Chemistry and the Council on Medical Education and Hospitals of the American Medical Association. It is designed to provide the intern with some suggestions as to conduct which will

be helpful to him in his service, some basic data of exceeding usefulness as a reference, particularly in emergencies and in the laboratory, and some information as to drugs which have been proved to be of merit as contrasted with those of unestablished value." Contains 112 pages. Publishers: American Medical Association, 535 North Dearborn Street, Chicago, Ill.

The Commission on Medical Education—Final Report. Some of the members of the Commission on Medical Education were: A. Lawrence Lowell, President of Harvard University, Chairman; Walter L. Bierring, M.D., Sec'y.-Editor of the Federation of State Medical Boards of the U. S. member and former President of the National Board of Medical Examiners; David P. Smith, M.D., Clinical Professor of Medicine and formerly Dean of Yale University School of Medicine; Hugh Cabot, M.D., Consulting Surgeon of the Mayo Clinic and Professor of Surgery of the Graduate School of the University of Minnesota; Samuel P. Capen, Chancellor of the University of Buffalo; David L. Edsall, M.D., Dean of the Medical School of Harvard University; William Darrach, M.D., Dean Emeritus and Professor of Clinical Surgery of the College of Physicians and Surgeons of Columbia University; Sir Robert Falconer, President of the University of Toronto; Henry G. Gale, Professor of Physics and Dean of the Division of the Physical Sciences of the University of Chicago; Michael Guyer, University of Wisconsin; Walter A. Jessup, University of Iowa; Thomas S. McDavitt, Secretary of the Minnesota Board of Medical Examiners; LaFayette B. Mendel, Yale University; William Allen Pusey, M.D., University of Illinois School of Medicine; Olin West, M.D., Secretary, American Medical Association; Ray Lyman Wilbur, M.D., Secretary of Interior, U. S.; Hans Zinsser, Professor of Bacteriology and Immunology, Medical School of Harvard University; Fred C. Zapffe, M.D., Secretary of the Association of American Medical Colleges; Willard C. Rappleye, Director of Study, 630 West 168th Street, New York City. Contains 560 pages with complete index.

DOCTOR SMITH CITES INTERESTING HISTORY

Dear Mr. Editor:

I have a very old volume of history of medicine that contains several pages that may be interesting to the citizens of Forsyth and Monroe counties.

The Southern Botanical Medical College of Georgia commenced its first course of lectures at Forsyth, Ga., on the first day of December, 1839. Its charter of incorporation was granted by the legislature of Georgia, December 18th, 1839, Chas. J. McDonald, Governor, and William A. Tennille, Secretary of State. The first faculty was L. Bankston, William H. Fonderden and Hugh Quin. Two students were in attendance, Jesse R. Ray and George J. Cook. The first regular degrees of medicine were conferred on Eli Branson, of South Carolina, George J. Cook, of Georgia, and Jesse R. Ray, of Alabama, in 1841.

Subscriptions were raised, and a very large building

erected in Forsyth. It was built of massive brick walls fifty feet high, eighty feet front, by seventy feet deep, three stories, the upper two fourteen feet between floors. There were three spicuous lecture rooms, with other departments for all necessary college purposes. The cornerstone was laid with Masonic honors on the 15th of August, 1840, the first cornerstone of a Reform Medical College in the world.

The occasion was a deeply interesting one. An immense concourse assembled, and they were deeply and eloquently addressed by the venerable Hugh Quin. He commenced his address to his fellow-citizens with the impressive words: "The eyes of the world are upon us."

In February, 1842, the legislature of Georgia appropriated the sum of \$5,000 to the college. With this amount, together with liberal donations from the city of Macon, and from the friends of our cause, the Trustees were enabled to purchase a splendid and massive building in Macon, the original cost of which was \$32,700.00. On the 17th of April, 1854, the college was destroyed by fire.

With the insurance money, and a liberal donation from the citizens of Macon, the college was rebuilt at Macon, Ga., in a style and manner entirely adapted to college purposes, constituting one of the most commodious and conveniently arranged medical colleges in the United States.

In February, 1856, the legislature granted a second appropriation of \$5,000.

I. Miller Comings is a native of Maine. He graduated in the Waterville College of that state in 1836, and removed to Georgia in 1839, and engaged in teaching. In 1843 he graduated from the Reform Medical College, and was elected to the chair of Anatomy and Surgery during the same year.

Osborne A. Lochrane was born in Middletown county, of Armagh, Ireland, August, 1829. He was carefully educated by a private tutor. Professor Lochrane studied medicine and came to this country for the purpose of practicing. Through the kind encouragement of Judge Joseph Henry Lumpkin, of Athens, Ga., he was induced to engage in the study of law. He graduated as a lawyer in 1849, and by a special enactment of the legislature of Georgia, was invested with the rights of citizenship before the regular period transpired. He settled in Macon, and in 1855 was elected to the chair of Medical Jurisprudence and Therapeutics in the Reformed Medical College.

Respectfully,

B. L. SMITH.

The Forsyth Advertiser, Forsyth, Ga., October 13, 1932.

Although the financial support of the National Institute of Health has been comparatively small, government scientists have made extremely valuable discoveries concerning such diseases as malaria, pellagra, hookworm, tularemia (rabbit fever), undulant fever, psittacosis (parrot fever), typhus, Rocky Mountain spotted fever, and many others.—National Institute of Health, Washington.

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